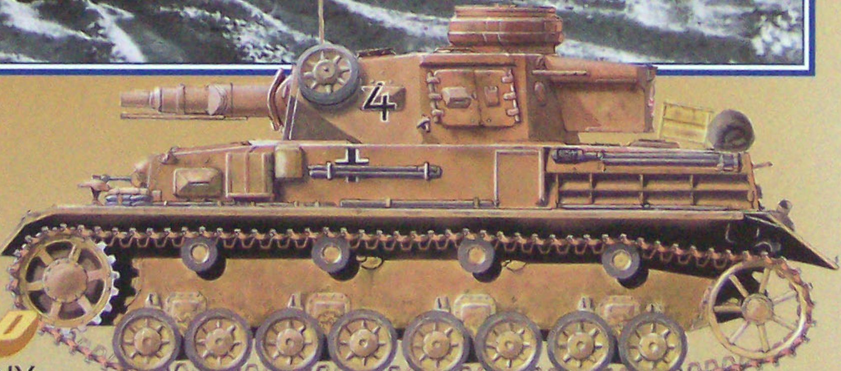
ARMOR AT WAR SERIES

7043

PANZERS in North Africa

John Healey



CONCORD
PUBLICATIONS COMPANY

7043

PANZERS
in North Africa

Text by John Healey
Color plates by Jean Restayn

http://zolder.ucoz.ru

Copyright © 2004
by CONCORD PUBLICATIONS CO.
603-609 Castle Peak Road
Kong Nam Industrial Building
10/F, B1, Tsuen Wan
New Territories, Hong Kong
www.concord-publications.com

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Concord Publications Co.

We welcome authors who can help expand our range of books. If you would like to submit material, please feel free to contact us.

We are always on the look-out for new, unpublished photos for this series. If you have photos or slides or information you feel may be useful to future volumes, please send them to us for possible future publication. Full photo credits will be given upon publication.

ISBN 962-361-685-6
printed in Hong Kong

Introduction

On the night of 14 February 1941 the first units of what was to become famously known as the Deutsches Afrika Korps (DAK) sailed into the port of Tripoli in North Africa. The Afrika Korps formation consisted at first of two divisions – 5.leichte-Division and 15.Panzer-Division. The 5.leichte-Division was originally sent out to prevent further advances from the British. It consisted of men and equipment drawn from the 3.Panzer-Division, and the bulk of its vehicles carried the 3.Panzer-Division symbol. The leading elements of the division mainly composed of anti-tank battalions and reconnaissance. Its armor, Pz.Rgt.5, landed in Tripoli a few days later. When it arrived in Tripoli the Pz.Rgt.5 comprised of about 120 panzers, half of which were Pz.Kpfw.IIIs and Pz.Kpfw.IVs. This division was later to be re-strengthened, reorganized, and on 1 October 1941, re-titled the 21.Panzer-Division. The 15.Panzer-Division leading elements arrived in North Africa in April 1941. Within two months it was complete and was then shortly thrown into battle against strong British armor in the 'Battleaxe' offensive. Both divisions remained in North Africa throughout the campaign, surrendering to Allied forces in May 1943.

On 15 August 1941 General Erwin Rommel's command was raised to the status of a Panzergruppe. By this period the DAK had been joined by the 90.leichte-Division. It consisted of various independent units, which were already serving in Africa. The division's first major campaign was the attack against the stiff defenses at Tobruk on 21 November 1941. Later during the battle it was given the title: 90.leichte. In addition the DAK had six Italian divisions – the Ariete, Trieste, Pavia, Brescia, Bologna and Savona.

Although the DAK boasted strong infantry units, the main strength lay without doubt in its panzer divisions. The success of the tank regiment in the desert depended upon its employment en masse and high concentration of a very large number of tanks for a surprise thrust deep into the enemy's weak spots, which was one of Rommel's favorite tactical maneuvers. Panzers were undoubtedly able to outrange and outgun Allied tanks and held their superiority until the arrival of American built Grants and Sherman's. However, the panzers were less mechanically reliable, due to the long distances they were compelled to travel, and of course the wear and tear caused by sand and dust sifting through the inadequately filtered engines.

In spite of the tanks mechanical problems, panzer crews still made full use of the freedom of maneuver, which desert terrain offered. The lack of terrain for the panzer and the supply difficulties had consequently resulted in a general modification of the German use of armored units in the desert. In Libya, with the exception of a number of fortified positions around Tobruk and Halfaya, no long defensive lines existed which the panzers were able to probe to find weak spots for penetration and exploitation. However, to overcome this, German forces advanced in several columns through the desert, the panzers were usually concentrated in one column - using maneuver to defeat the enemy. German armored units usually advanced in considerable depth, a battalion formation with two companies leading and one on reserve, or an inverted 'V' formation with one company leading and two in reserve.

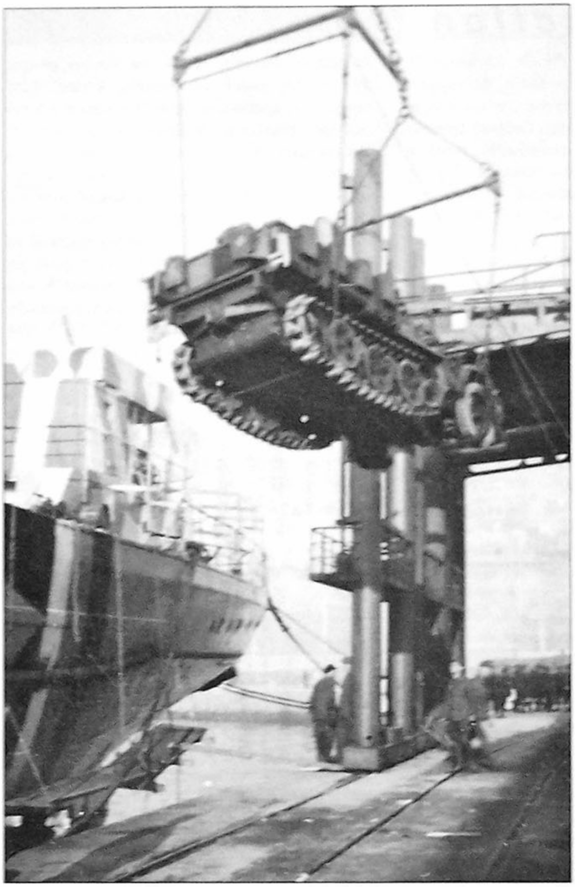
The first of the African divisions, 5.leichte-Division, took part in a number of major battles including the drive to Egypt in a drastic attempt to capture Tobruk. The division was strengthened by the addition of Pz.Gr.Rgt.104 from 15.Panzer-Division. The 5.leichte-Division and later the 21.Panzer-Division comprised of Pz.Rgt.5, I/Panzerjäger Abteilung (mot) 33 and Panzerjäger Abteilung (mot) 39. It was the 5.leichte, retitled 21.Panzer-Division in October 1941, which almost completely destroyed the British 7th Armoured Brigade during the 'Crusader' offensive in November 1941. The following year in early 1942, the 21.Panzer-Division took part in Rommel's offensive leading to the fall of Benghazi on 29 January. Later it helped capture Tobruk. However, by July 1942, at El Alamein, it was badly battered which consequently left only a handful of panzers. During the DAK retreat it served as rear guard for Axis forces, fighting gallantly against all odds as it retreated. By February 1943 the division was strengthened by 90 tanks, consisting mainly of late variant Pz.Kpfw.III and Pz.Kpfw.IV's. It took part in the battle for Sidi Bou Zid in mid February and captured the town of Sbeitla. The remaining weeks of its life were spent in defensive actions before surrendering between 11 and 13 May 1943.

Another major panzer division to see extensive action in North Africa was the 15.Panzer-Division. The armored arm of this division comprised of Pz.Rgt.8 and Panzerjäger Abteilung (mot) 33. It was a powerful division and saw action in defensive moves against the British 'Brevity' and 'Battleaxe' operations around Tobruk. During operation 'Crusader' the 15.Panzer-Division yet again found itself in the thick of fighting. It was reduced to a handful of operational tanks and had to be withdrawn at the end of November 1941 for refitting. Early the following year it was reinforced with shipments of fresh armor from Europe and it was soon on the offensive during Rommel's successful attack to capture Benghazi. For the next few months there was no respite for the panzer crews of the 15.Panzer-Division as its regiments pursued the retreating British over the border into Egypt. The division was involved in the first battle of El Alamein, but was unsuccessful against well-prepared British positions. For the next few months the 15.Panzer-Division battled its way back and forth across the desert. However, on 23 October 1942, the British commenced a massive counter-offensive, and in the heavy battles that followed the 15.Panzer-Division was decimated. By early November Pz.Rgt.8 had lost all of its tanks as well as its regimental commander. Reluctantly forced to retreat into Tunisia, it went into reserve under 1.Italienische-Armee. With much of its armored strength replenished it went onto the offensive at Medenine on 6 March 1943. But in spite of a number of successes by its panzer regiments it was soon pushed back by superior British forces, with the loss of 24 of the division's much needed tanks. By March 1943, the 15.Panzer-Division was a mere shadow of its former self and could barely field just ten serviceable panzers. Within two months it was pushed back with even greater loss and eventually cut off alongside 10.Panzer-Division. On 9 May 1943, 15.Panzer-Division finally surrendered to the British.

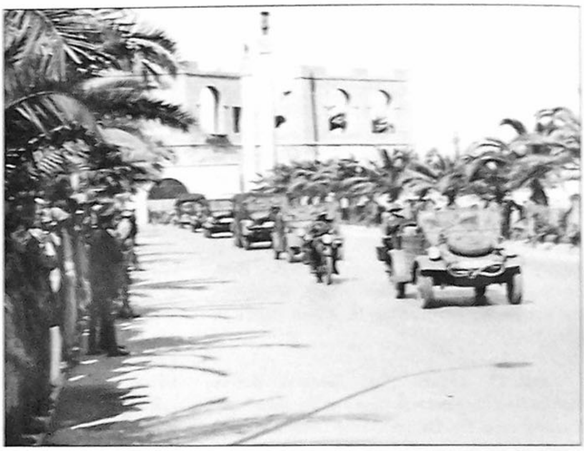
A late panzer division to see action in North Africa was the 10.Panzer-Division, which comprised mainly of Pz.Rgt.7, Pz.Jg.Abt.90 and Sturmregiment 'Hermann Göring'. This recently refitted division had been transferred to North Africa from Europe after receiving a heavy mauling on the Eastern Front. In early 1943 it was immediately thrown into the battles for the Tunis bridgehead. Its strength proved invaluable to the other badly depleted panzer divisions, and it took part in the battle for Sidi Bou Zid. This division, consisting of hardened veterans from Russia consequently achieved considerable success. During the DAK retreat in April/May 1943 the division served as a mobile reserve. However, due to constant fighting the weary panzer regiments were eventually forced back into the hills north of Bizerte. On 9 May 1943 the division surrendered. Among the units that fell into Allied hands was the famous assault regiment from the Luftwaffe's 'Hermann Göring' Division.

The DAK had fought superbly against their gallant foe, but due to critical fuel shortages, lack of supplies and the almost non-existence of reserves, Rommel's army were not the same force that had disembarked at Tripoli two years earlier. Allied air power and the brilliant defensive use of its artillery were also the deciding factor in the DAK losing control on the battlefield. Many of the panzers were lost in the desert from anti-tank guns and the dominance of air power in late 1942. During the last few months in Africa panzer regiments fought doggedly and with great skill as they fell back from position to position. By mid April 1943 they found themselves reduced to holding a tight perimeter in the last range of hills, which surrounded the coastal plain around Bizerta and Tunis. With Rommel on the point of defeat, he flew back to Germany to beg Hitler to evacuate the remaining forces, but Hitler refused point blank, and said there should be no surrender. Eventually on 12 May 1943, the gallant DAK clinging on to survival, surrendered. The great panzers that had once dominated the battlefield in North Africa had finally been vanquished forever.

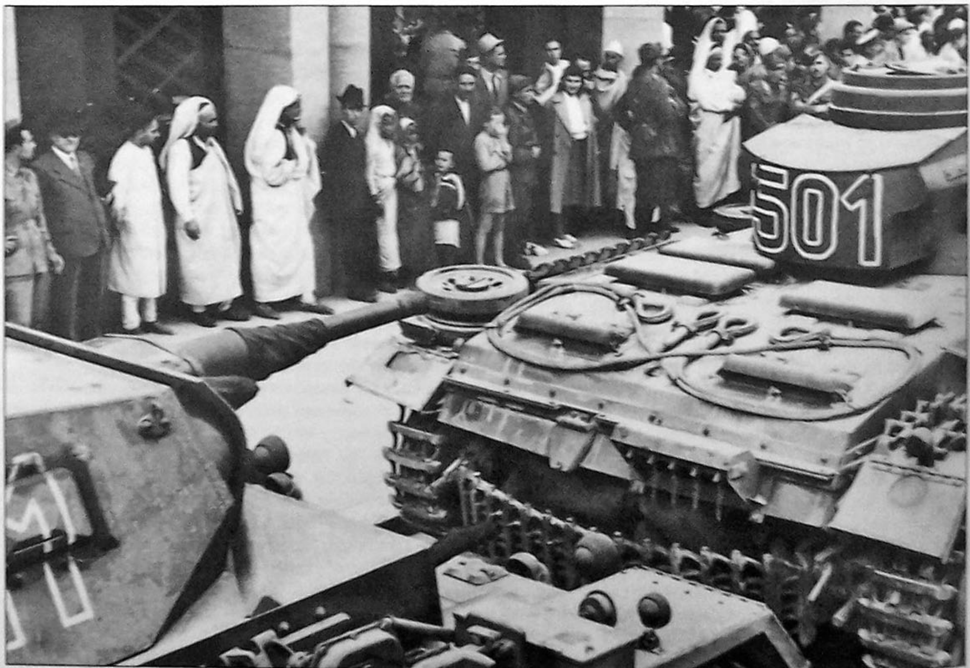
Photo credits: HITM Archive, Bundesarchiv Koblenz, IMW London, SVB Munich & U.S. National Archives



An Sd.Kfz.10/4 is offloaded from a transport ship in Tripoli on 14th February 1941. The half-track is still painted in the standard overall dark gray color.

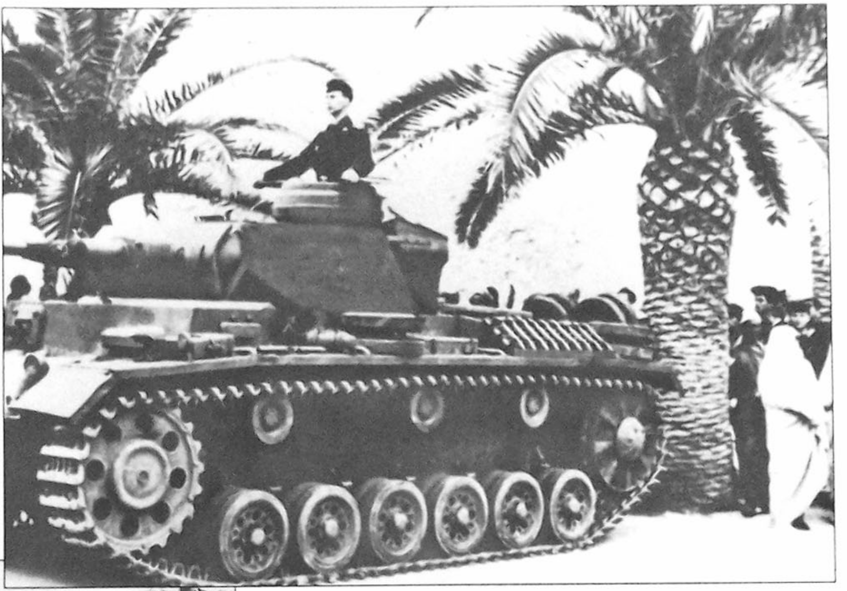


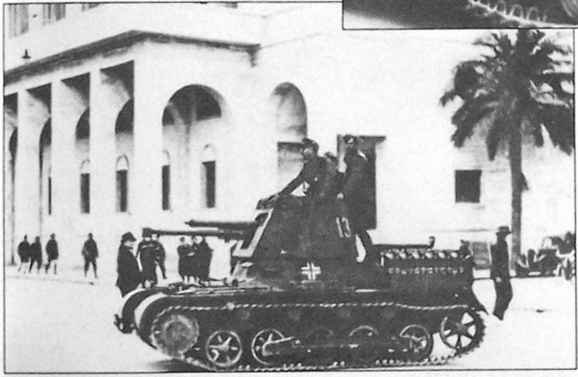
A line of various vehicles belonging to 5.leichte-Division following their arrival in Tripoli on 14 February 1941. A Volkswagen Kfz.I staff vehicle leads the column flanked by two motorcyclists. The first German forces to arrive in the town comprised of advanced echelon troops of the 5.leichte and.Pz.Rgt.5, as well as reconnaissance soldiers and support units.



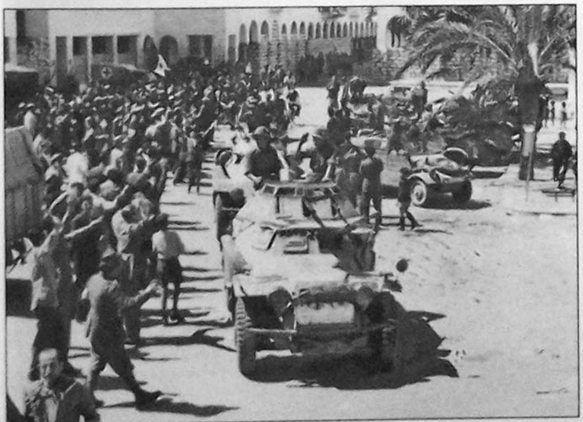
14 February 1941 and armored vehicles of the 5.leichte-Division pass waving spectators in Tripoli. In this photograph two Pz.Kpfw.IIIs move along a road. There seemed no end to this military might, for Erwin Rommel had cleverly ordered his panzers to drive around the block to give the impression of a large army. Both panzers are painted in overall dark gray. Markings include the tactical number '501' painted in a white outline on the rear of the turret of the leading Pz.Kpfw.III. On the other vehicle following closely behind, the tactical number '111' can be seen painted on the side of the turret, also finished in a white outline.

February 1941 and another Pz.Kpfw.III belonging to the 5.leichte-Division passes through the town of Tripoli. The basic tank regiment had altered three times between the start of the campaign in February 1941 and mid-1942. In 1941 each tank regiment contained a total of 204 panzers, of which 136 were light armored combat vehicles of Panzerkampfwagens, consisting of Pz.Kpfw.Is and IIs, and only 68 medium and heavy Pz.Kpfw.IIIs and IVs.

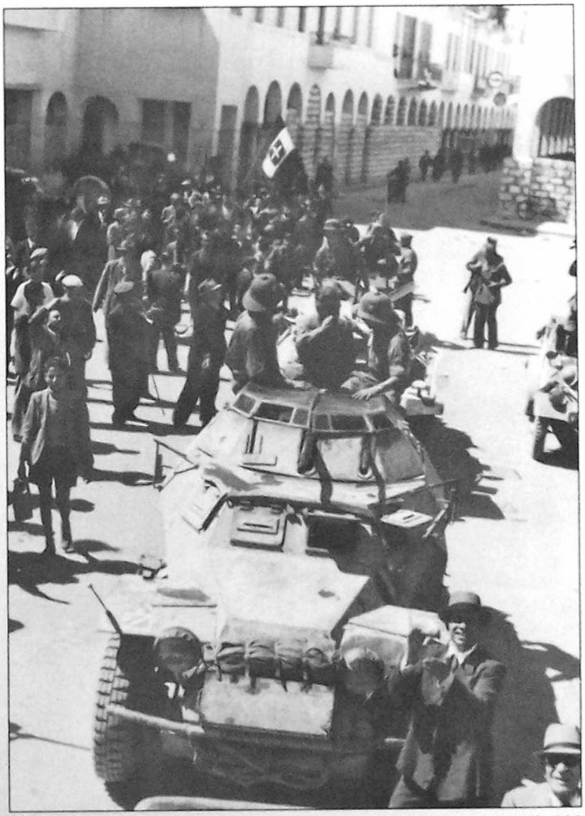




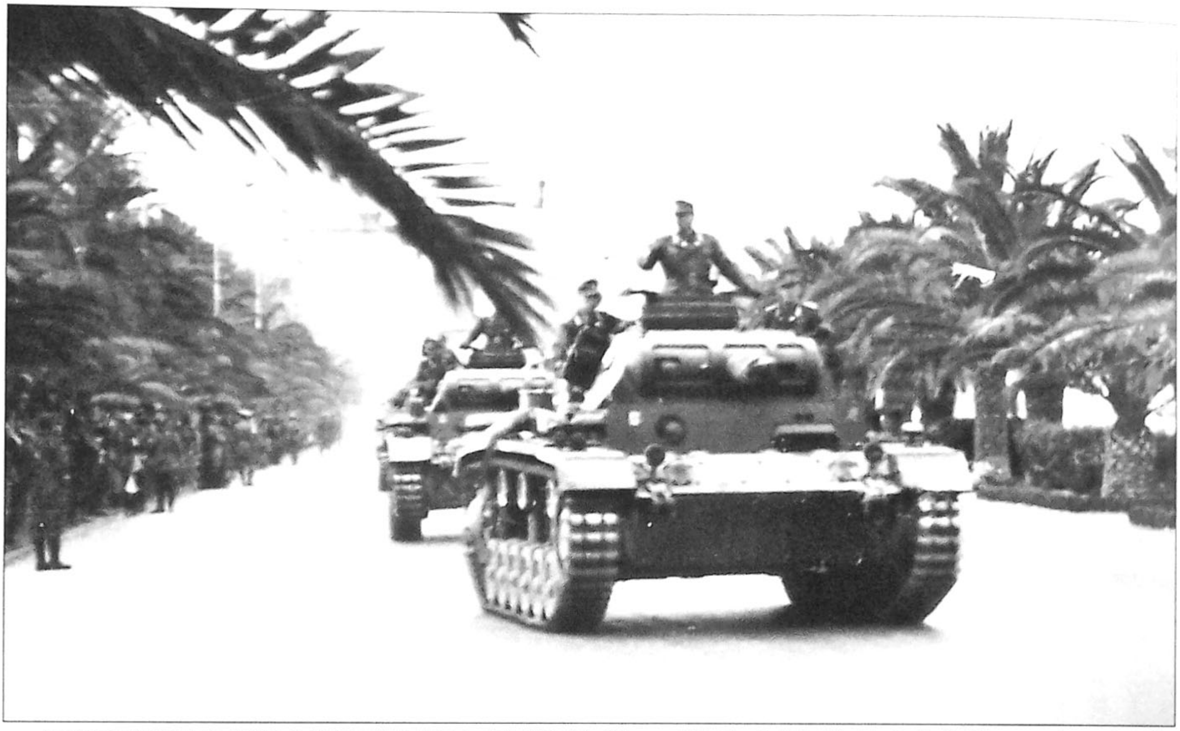
A Panzerjäger I assault gun moving along a road in Tripoli in February 1941. This vehicle still retains its original camouflage scheme of overall dark gray. The tactical number '13' is painted in white on the side of the fixed turret. The small national cross is painted in black with a thick white outline on the vehicle's hull-side.



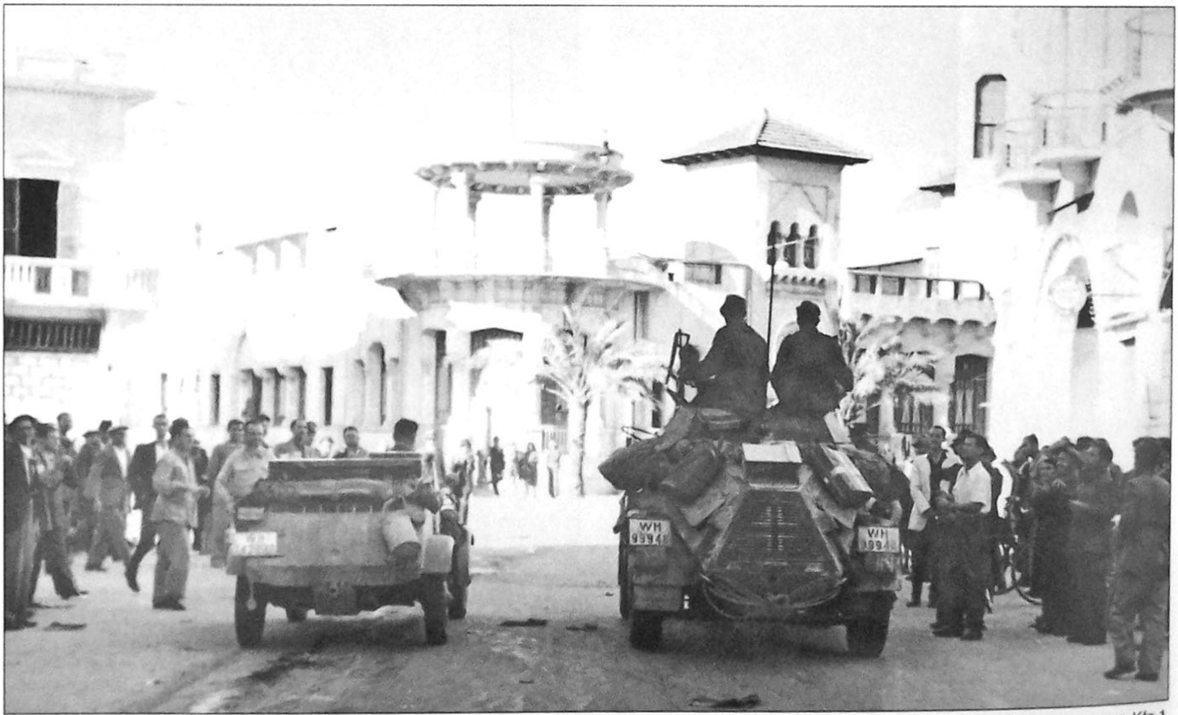
An assortment of armored vehicles belonging to the 5.leichte-Division in Tripoli in February 1941. As with all vehicles in the DAK they have been painted in overall dark yellow. Two of the vehicles in the photograph can be identified as an Sd.Kfz.222 followed by an Sd.Kfz.221, which were primarily used for reconnaissance out in the desert.



Another photograph, showing one of the same Sd.Kfz.222 reconnaissance vehicles in Tripoli. Within days of the 5.leichte-Division arriving in North Africa Rommel ordered reconnaissance units out into the blistering desert eastwards along the coast towards Mugtaa. After gathering vital intelligence Rommel soon ordered General Johannes Streich's panzer force to drive from the town of Syrte with advanced elements of 5.leichte-Division.

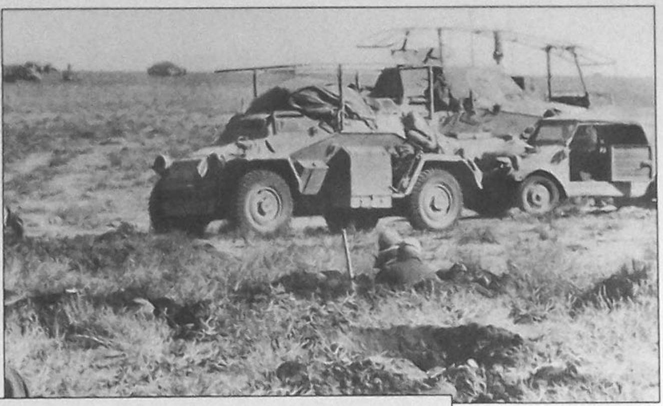


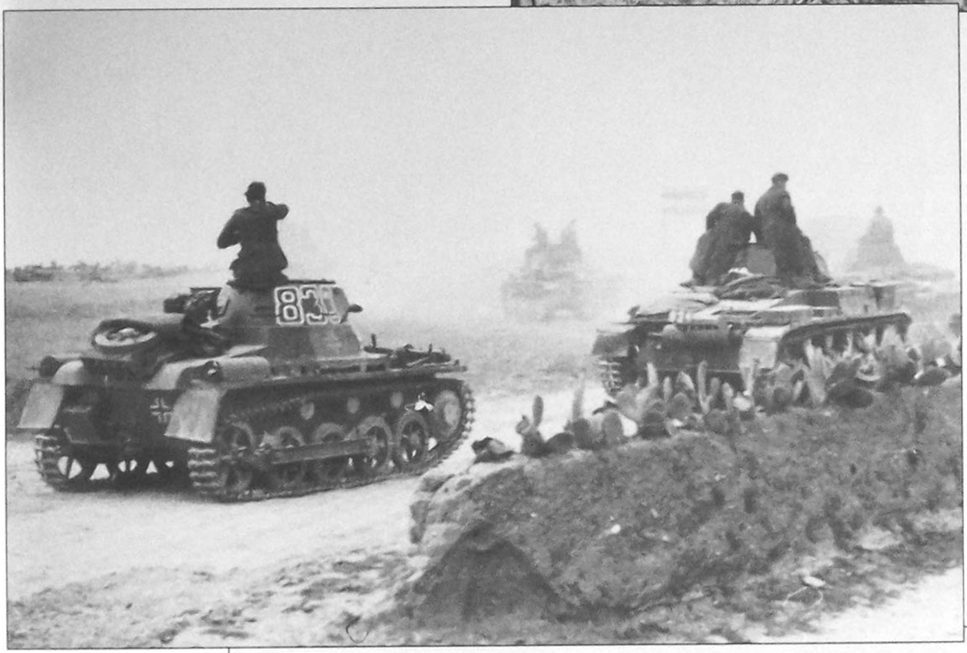
A column led by two Pz.Bef.Wg.III Ausf.H rattles along a road in Tripoli in February 1941. The Pz.Kpfw.III's debut in North Africa soon demonstrated its effectiveness at over running enemy positions with speed and maneuverability, and used its gun as artillery against forward enemy columns with devastating effect.



In the town of Tripoli a Volkswagen Kfz.1, on the left, and an Sd.Kfz.222, on the right, can be seen passing a line of spectators. The Volkswagen Kfz.1 was a superb little vehicle and was used for a wide variety of tasks and was much prized by both sides in the desert war. Both vehicles are painted in overall dark yellow. No other markings except for the license plates are identifiable.

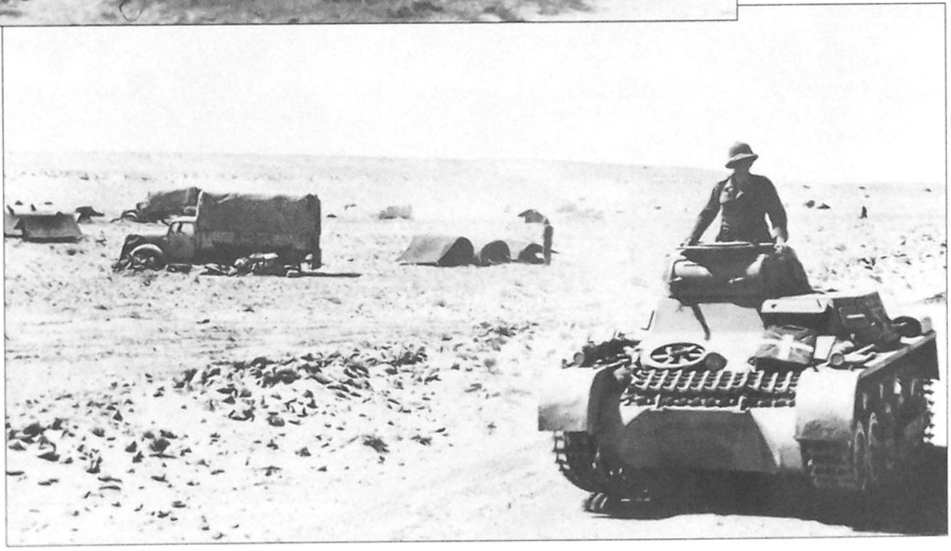
Vehicles belonging to Pz.Rgt.5 – the original 'blocking force' which arrived in Tripoli in February 1941 – these vehicles have come to a halt somewhere outside Tripoli. On the left is a Sd.Kfz.223. Behind it is a Volkswagen type 82 Kfz.1 cross-country light personnel carrier. The third vehicle is an early production Sd.Kfz.263 radio armored car. All these vehicles have been painted in overall dark yellow.

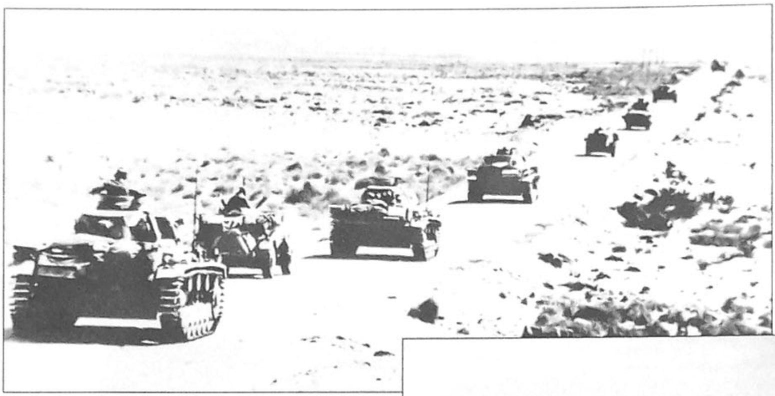




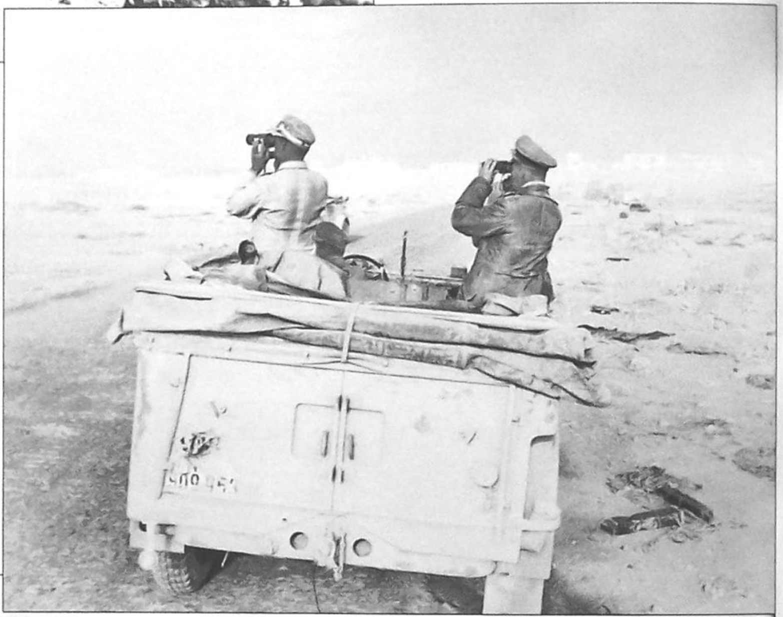
Early March 1941 and a column of panzers from Pz.Rgt.5 move across the desert bound for the front lines still in their European dark gray paint. The vehicle at the rear, a Pz.Kpfw.I Ausf.A has the tactical number '833' painted on the side of the turret in white outline. There appears to be some stowage carried on the engine deck including a spare roadwheel. In front of it are two Pz.Kpfw.II Ausf.A-C, the nearest of which has the tactical number '834' painted in white on a small black rhomboid plate.

A Pz.Kpfw.I Ausf.A moves through the desert in March or April 1941, passing destroyed Allied equipment. The tank has track links attached to the front of the vehicle for additional armored protection. It is also using its idler wheel to defend the vehicle's thinly armored front against enemy anti-tank guns. Note that a flag painted in red with a white cross has been attached to the front of the tank for aerial recognition. Within a year the DAK removed the aerial recognition flags from their vehicles, as they had become perfect targets by Allied aircraft.

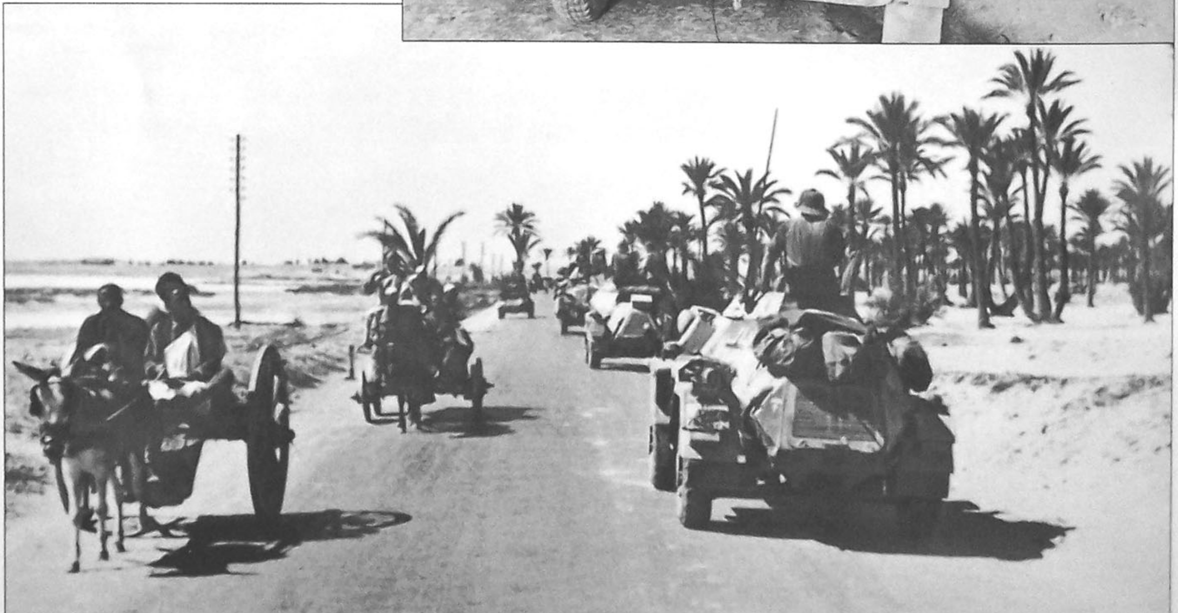




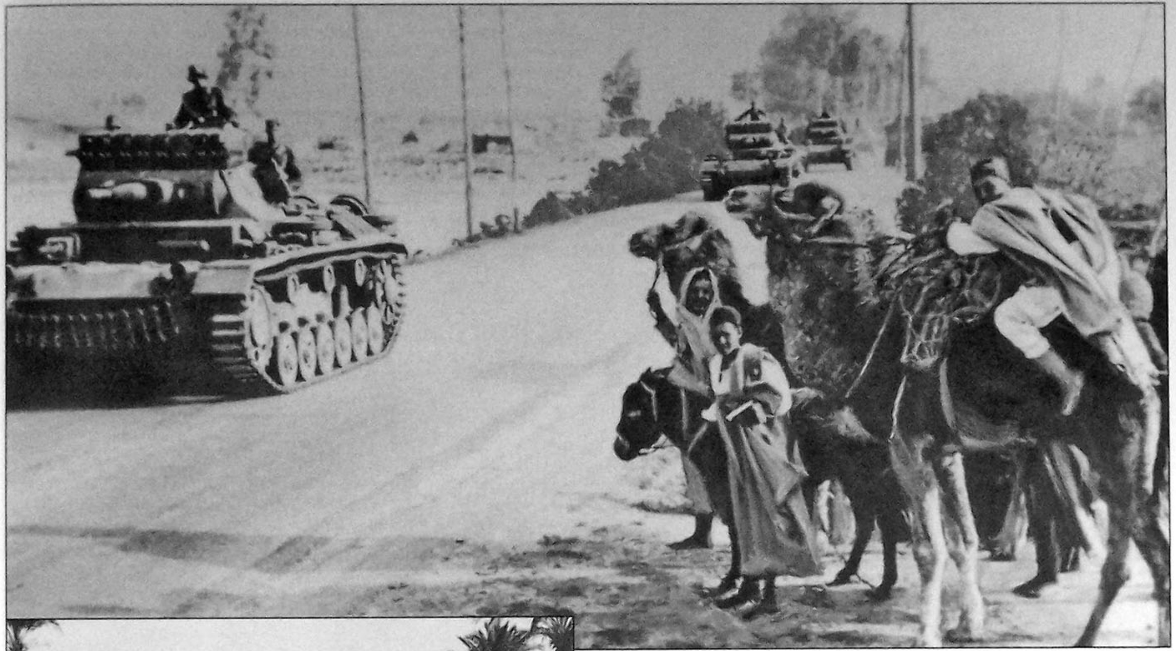
The mobility and striking power of the DAK is exemplified in this photograph of a column of Pz.Kpfw.III tanks accompanied by armored cars, as they move along a road towards Mersa el Brega in March 1941. All the vehicles appear to be heavily laden with supplies.



In one of his open staff cars Rommel with another commander surveys the battle at Mersa el Brega, whilst well ahead of his own forward headquarters. This was a typical trait of the Desert Fox, who was seen many times by his men up with the leading column with no thought to his own safety. On the rear of the vehicle the early pattern rear license plate '909 953' is painted in black on a white background.

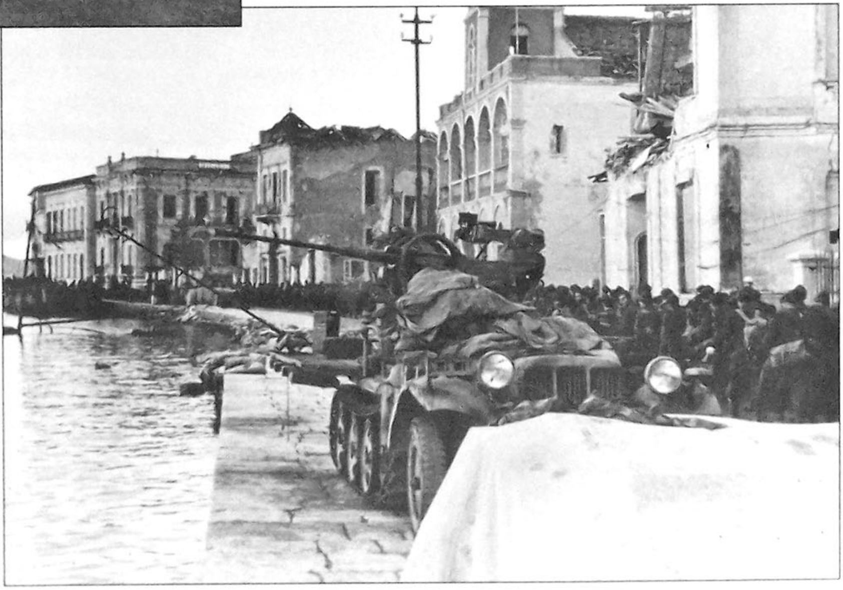


Somewhere on the road to Benghazi an unidentified mechanized reconnaissance unit of Sd.Kfz.221 and Sd.Kfz.222 armored cars move along a road. Various provisions have been stowed on the rear of the vehicles for the long and sometimes tortuous journey ahead.

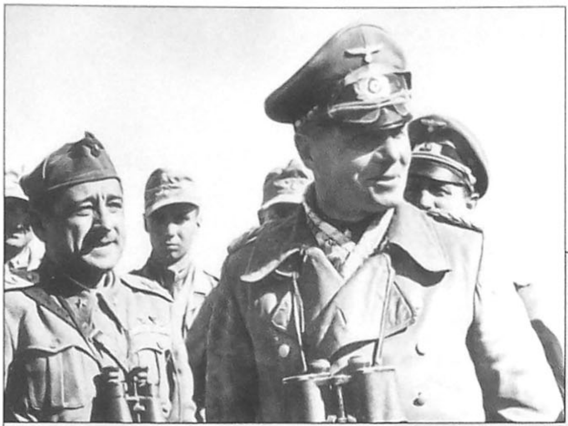


A column of Pz.Kpfw.III Ausf.Gs, laden with supplies passes a group of natives on the side of a dusty road. These vehicles are part of the 15.Panzer-Division, which arrived in Africa during April-June 1941. It also fought with distinction throughout the campaign, winning a number of important strategic tank battles. The bulk of the panzer division during the first year in North Africa composed of Pz.Kpfw.IIIs.

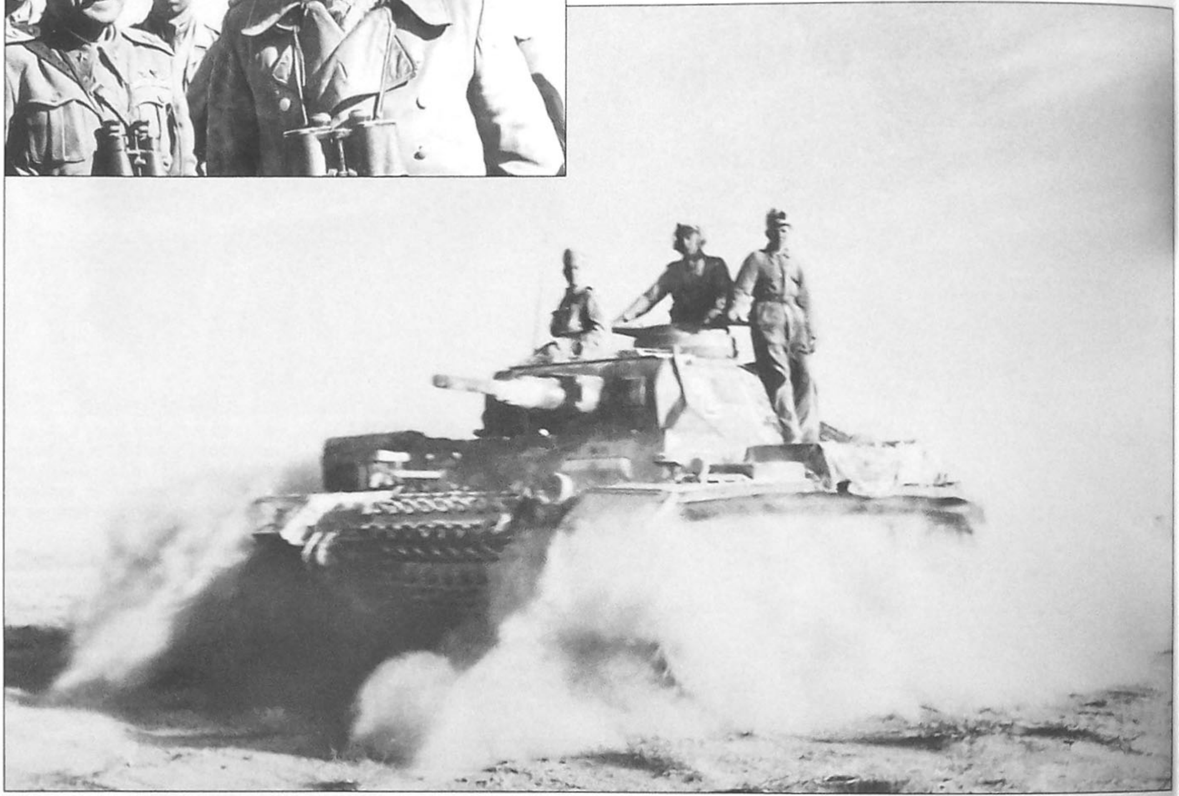
A long column of soldiers march along the side of the road accompanied by light cross-country vehicles. This photograph was taken in early April 1941 near the peninsula of Cyrenaica. It was here that Rommel ordered his force into a dramatic three-pronged assault, determined to exploit the enemy's confusion. Backed by two Italian divisions, German units attacked the British defenders and drove them back. In the aftermath that followed a trail of destruction led to the smoldering town of Benghazi.



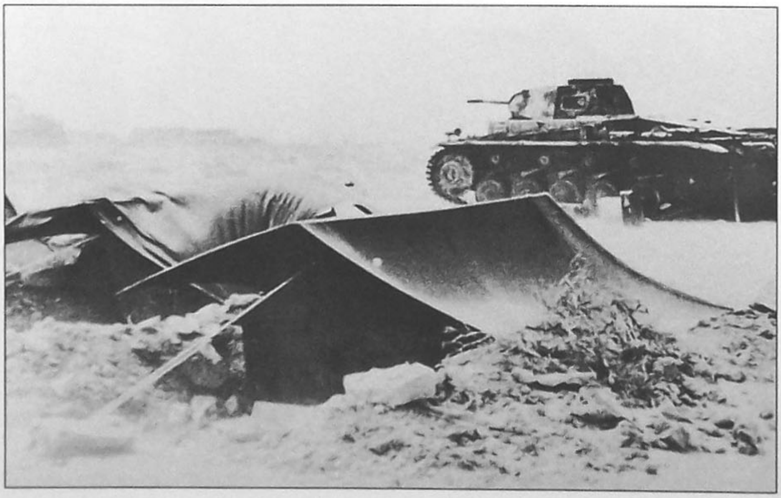
An Sd.Kfz.10/4 halftrack armed with a 2cm FlaK38 anti-aircraft gun provides support to one of the DAK armored units as it passes through a captured coastal town in 1941. With a crew of 7, space was at a premium. However, the platform could quickly be folded down to provide additional space for the crew to maneuver around the gun. Magazines for the FlaK gun were carried in ready racks on the sides of the platform and sometimes towing a single axle trailer. Of interest in this photograph the crew have built an additional platform on the rear of the halftrack, which can just be seen with additional boxes of ammunition.



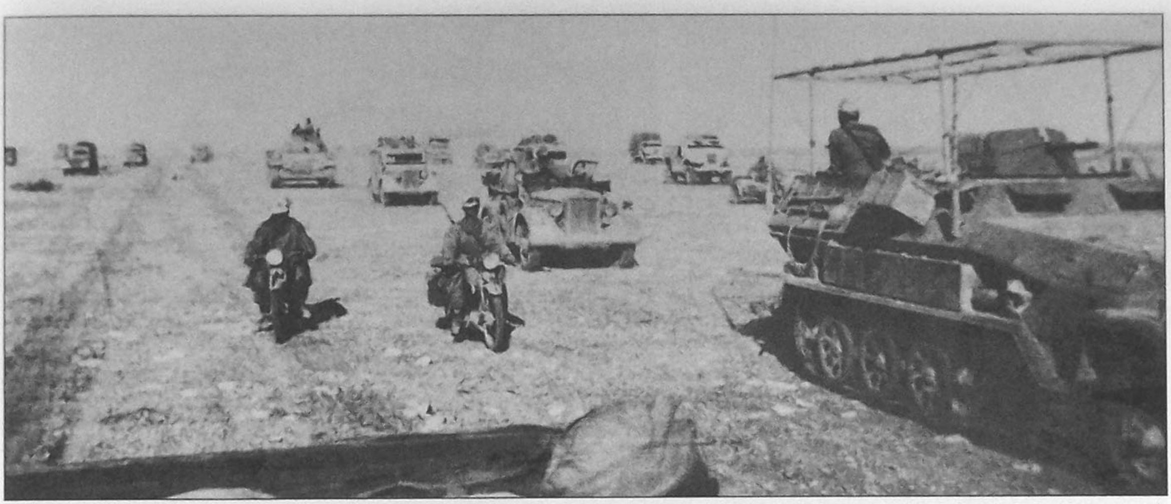
The master tactician and commander of the DAK, General Erwin Rommel, seen here with a contingent of Italian officers. Rommel had absolute conviction in mobile operations and believed in leading his panzer force in Africa from the front, or as he said it, 'from the saddle'. During operations in the desert, Rommel was found again and again with the leading tank, leading platoon or leading company commander. At the head of a panzer column, he directed fire like a corporal, with energy and enthusiasm, like some kind of mystic warrior, encouraging his men to move forward and shoot.



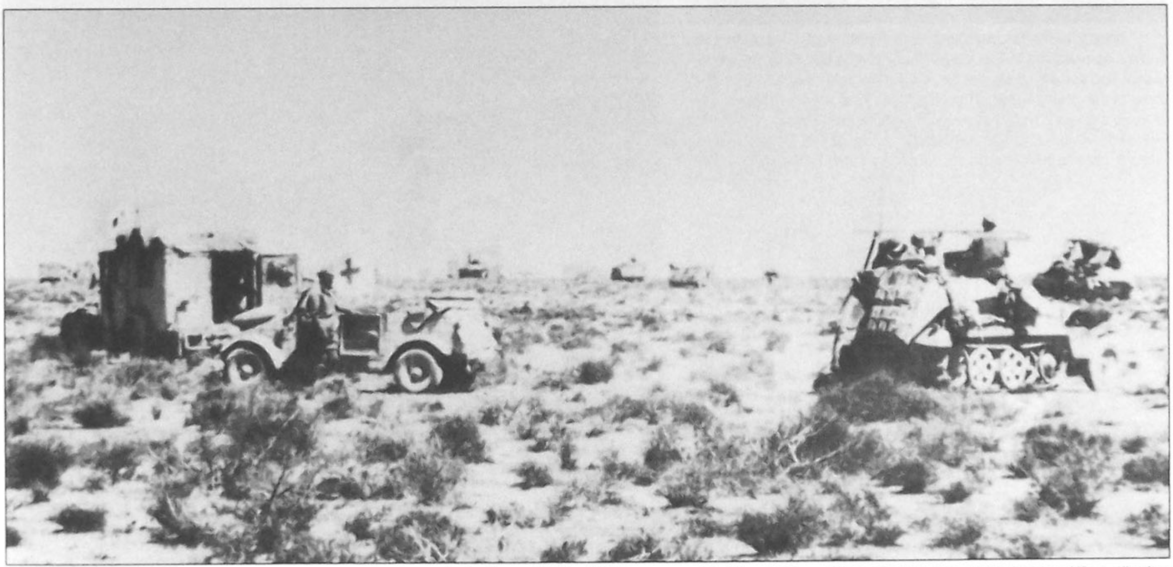
A Pz.Kpfw.III Ausf.G or H armed with a 5cm gun moves across the desert creating a large dust cloud.



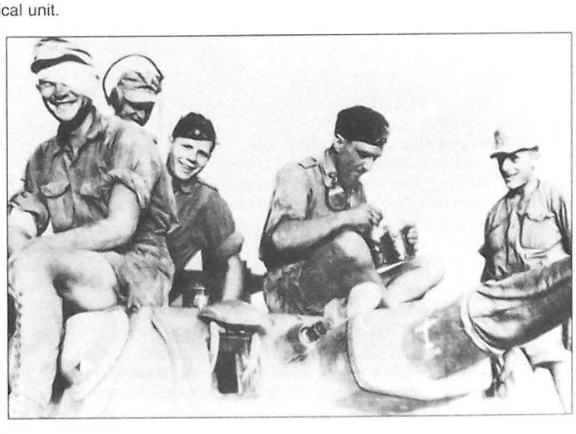
A Pz.Kpfw.II Ausf. A-C moves past a group of tents that have been hastily erected in the open desert. The vehicle has not received a coating of dark yellow, still retaining its original dark gray color. No visible markings can be seen except for the national cross painted in black with a thick white outline on the side of the turret.



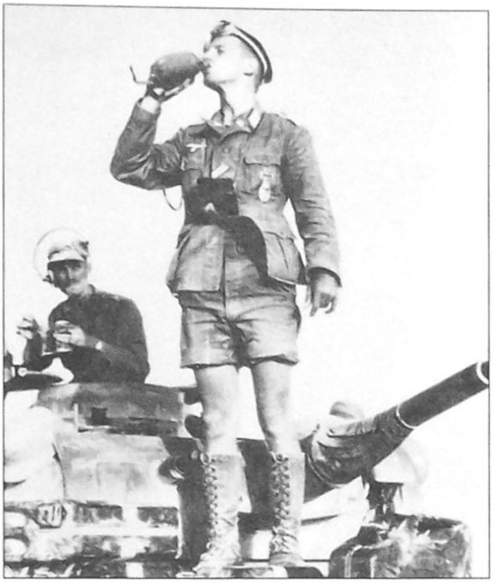
On the advance across the Western Desert is a multitude of various vehicles purposely spread out in order to minimize the threat of aerial attack. Horch cross-country cars, Pz.Kpfw.IIIs, motorcycles and an Sd.Kfz.251 command half-track can be seen in the column.



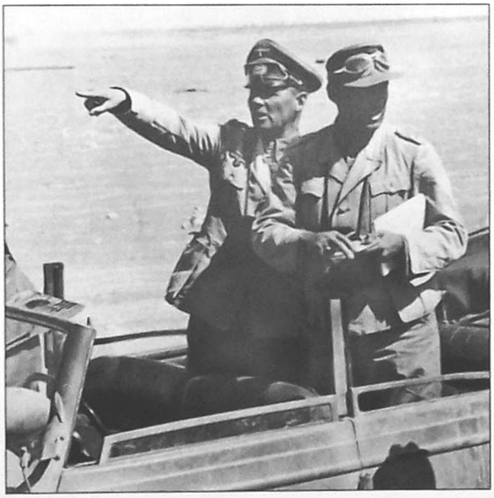
A number of vehicles are spread out across the desert including a Sd.Kfz.250/3 command half-track. Two of the vehicles, one a Volkswagen Kfz.1, display the Red Cross flag, indicating that they are more than likely attached to a medical unit.



Crewmembers of a Pz.Kpfw.III of an unknown regiment smile for the camera during a pause in the division's advance. Note one of the crewmembers is painting a kill marking of an Allied aircraft, which it shot down, on the tank's gun barrel. Victory markings was widespread practice in all DAK units that had destroyed enemy aircraft, vehicles, or other targets like buildings, bridges, trains, and even a ship sunk by a tank.

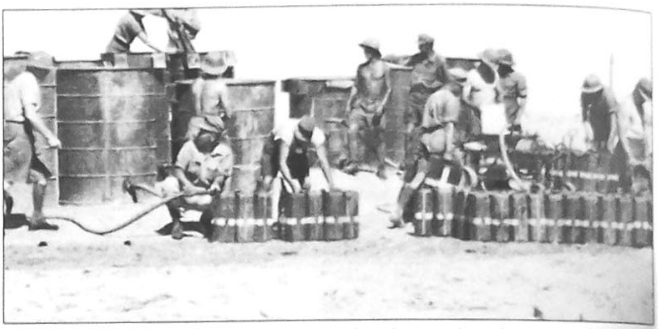


Thirsty work for the crew of a Pz.Kpfw.III. The tank has halted somewhere in the Libyan Desert and the crew pause for water and something to eat. Note the Pith helmet attached to the side of the tank's turret. This headgear was a conventional sun helmet that was widely issued to men of the DAK in 1941. The Pith helmet was not very popular among the soldiers, who almost invariably discarded it in favor of the regular DAK field cap.

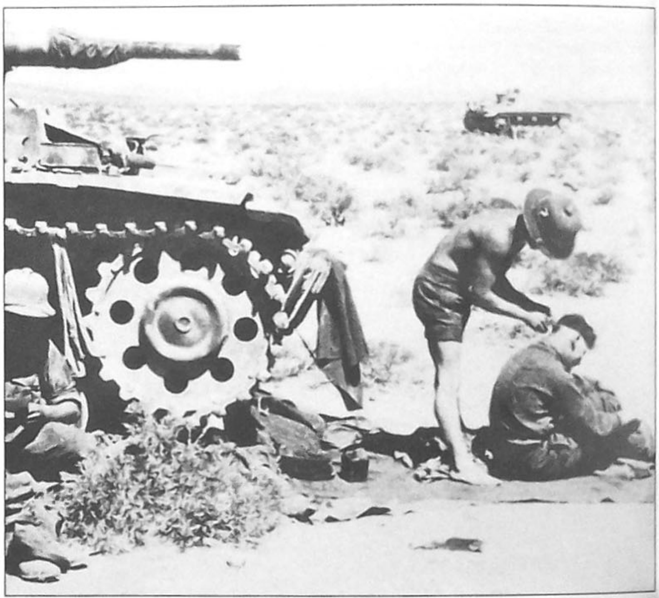


From his open staff car Rommel and a member of his personal DAK staff points to a freshly occupied position. Out in the desert, Rommel was able to see far beyond his front-line positions and track Allied movements. The Desert Fox preferred to sit in the front of his car with his driver, rather than at the back: from this vantage point, he could scrutinize the landscape as he passed through.

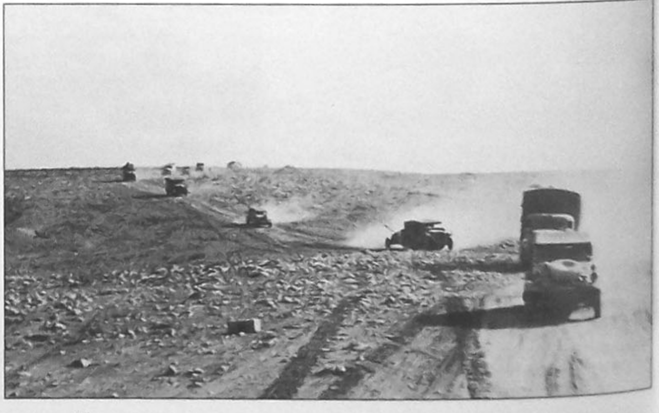
A column of vehicles from Rommel's mixed force moving along a road somewhere in the Cyrenaica peninsula. One of the vehicles, a Horch Kfz.15 heavy cross-country car, can be seen towing a 3.7cm anti-tank gun. The leading vehicle is a Volkswagen Kfz.1. All the vehicles are distinctively painted in overall dark yellow, but no markings are visible in this photograph.

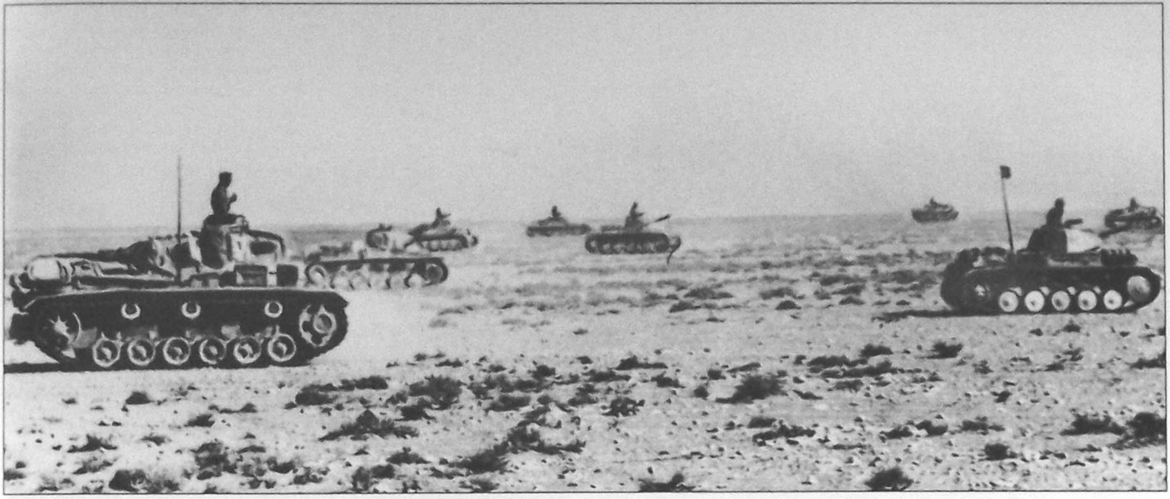


An intermediate water supply base stationed somewhere in the middle of the desert. These supply lines were the main artery to any army wishing to sustain itself in North Africa. Across the desert the DAK constructed various distilling plants, both portable and stationary in order to supply frequently water to the army. Water was not only needed for drinking, but was also a main component for radiators of vehicles that were compelled to travel many hundreds of miles in very high temperatures.



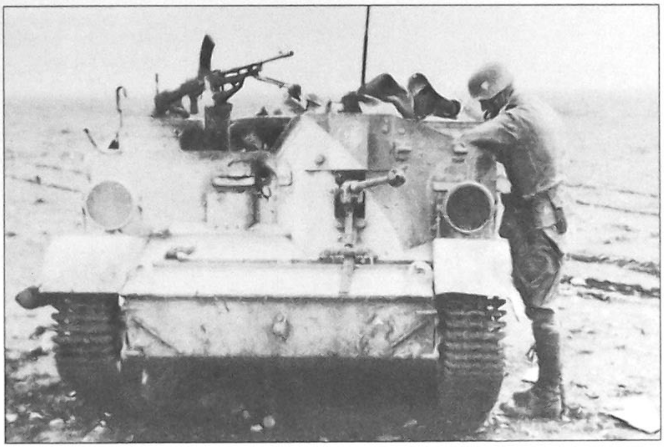
During a pause in fighting, the crew of a Pz.Kpfw.III.Ausf.G relax in the sun. One of the crew members can be seen having a haircut. Temperatures inside a tank were most days almost unbearable for the crews, and so the chance to relax from the stuffy claustrophobic world of the tank was always a welcoming break for the men of the DAK.

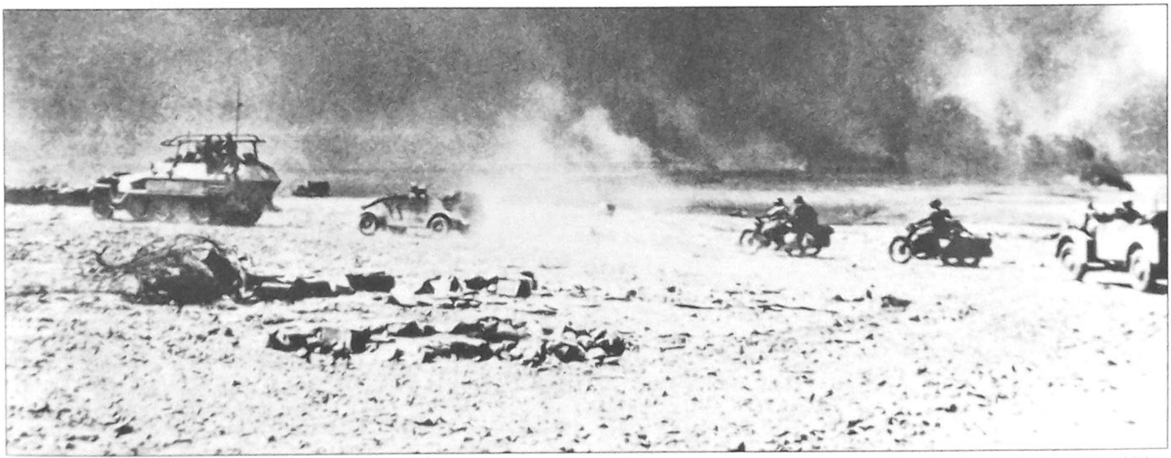




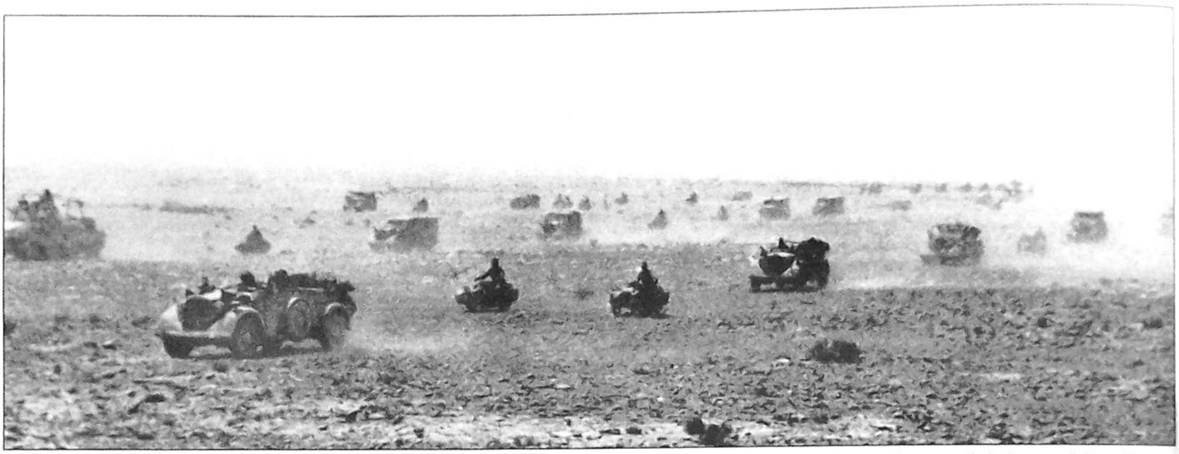
On the move through the desert are a number of Pz.Kpfw.IIs and Pz.Kpfw.IIIs belonging to the 15.Panzer-Division. Although this photograph has been taken at ground level on another armored vehicle it is difficult to see these tanks from this view using the famous DAK 'V' formation. A battalion of about 75 tanks usually used this formation, with two companies leading and one in reserve.

A DAK Panzer Grenadier inspects a knocked out British Bren Gun Carrier followed a heavy battle near the important town of Derna. The armored advance on Derna was a complete success for the DAK. Along the coastal road alone from Agedabia some 973 British prisoners were taken, among them were four generals and 176 other officers. This Bren Gun Carrier is just one of three captured during the advance on Derna.

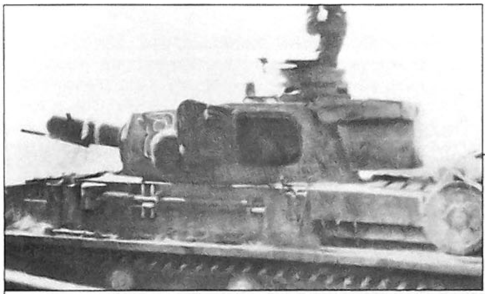




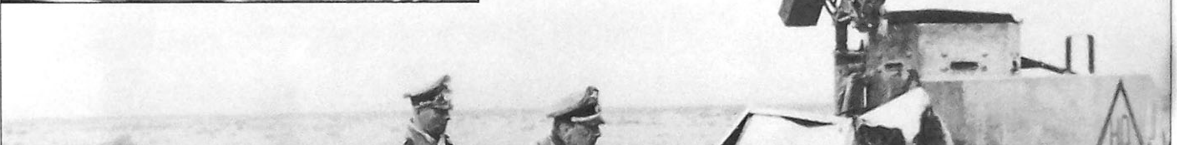
During the battle of Tobruk a command Sd.Kfz.251/6 Ausf.B half-track makes its way quickly across the desert followed by two lightly armored vehicles and motorcycle combinations. The Sd.Kfz.251 has more than likely received a coat of dark yellow paint leaving only the frame antenna in the original dark gray finish. It probably carries the command pennons for the commander of the 15.Panzer-Division as well.



During the battle of Tobruk a multitude of vehicles from 15.Panzer-Division are spread across the North African desert to limit the possibility of heavy collateral damage to its advancing units. The 15.Panzer-Division played a major roll in the campaign to capture the port of Tobruk, quickly striking into the region against heavily defended British and Commonwealth positions.

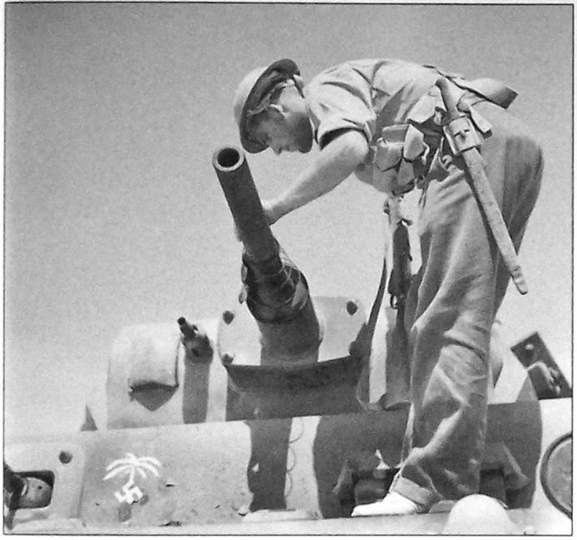


A Pz.Kpfw.IV Ausf.D on the move with its commander surveying the endless desert terrain ahead. The vehicle is clearly armed with the short L/24 7.5cm gun. The turret side hatch is open in order that all empty shell cases can be easily jettisoned, which means that the tank is more than likely engaging a target. The vehicle is painted in overall dark yellow and has the tactical number beginning with an '8' painted in a white outline on the side of the turret.

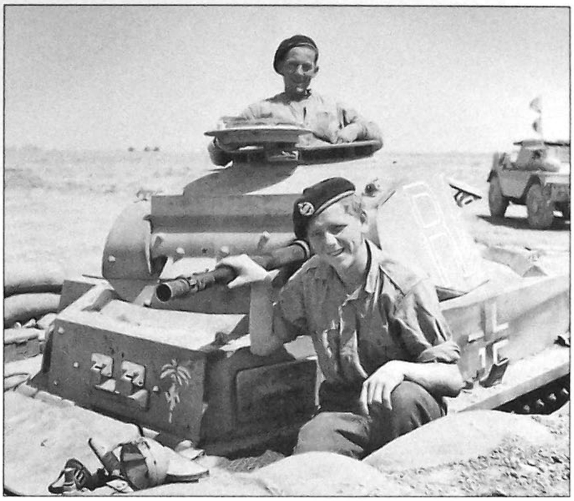


Rommel and a number of his officers observe a captured M3 Stuart light tank that has evidently become victim to an anti-tank shell. Although the might of the 15.Panzer-Division were reportedly yielding success in the area, the enemy's stiff resistance nonetheless perplexed Rommel. Tension between Rommel and his commanders increased even more when more units of 15.Panzer-Division arrived to help smash the Tobruk defenses, but led to further heavy losses to both men and armor.

An interesting photograph actually taken by Rommel himself from his light Fiesler Storch aircraft. As in this photograph, which shows a number of stationary armored vehicles including a Pz.Kpfw.III, Rommel would fly his Storch plane at shoulder-height level dropping messages, instructing the armored column to move forward, or else he would come down.

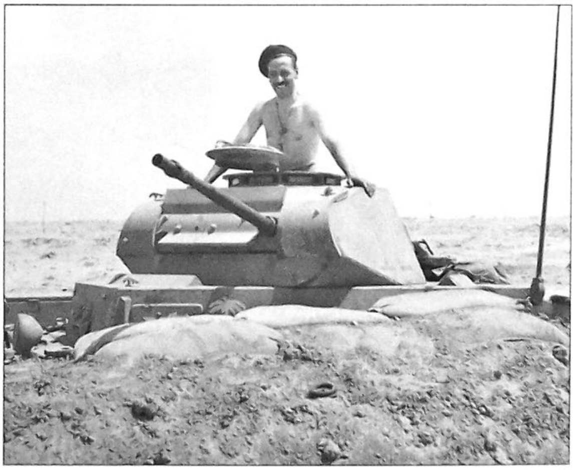


A British soldier examines the 5cm gun barrel of a Pz.Kpfw.III Ausf.G. The vehicle has either run out of fuel or been abandoned by its crew or been knocked out of action. Note the familiar DAK palm tree insignia painted in white on the front of the hull.

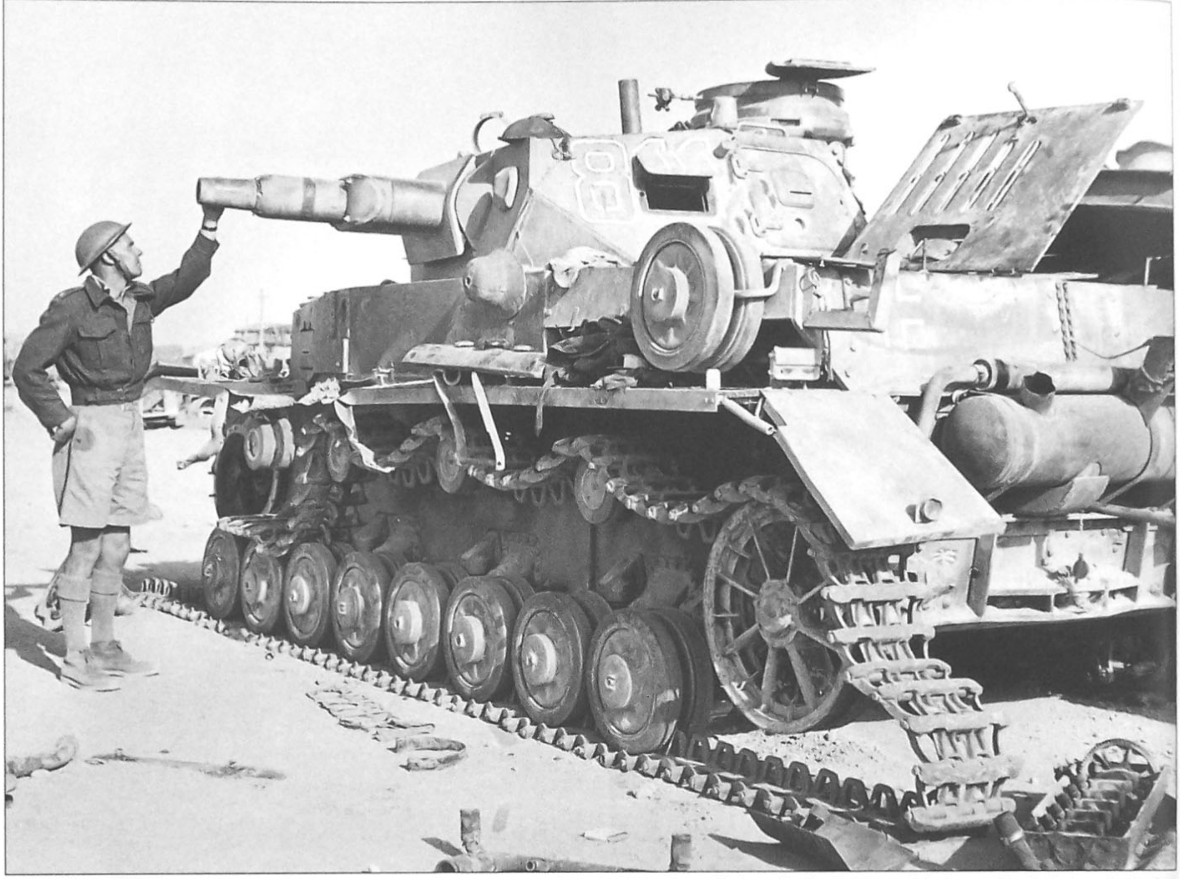


A Pz.Kpfw.II Ausf.A-C with a white outline tactical number 'RA' indicating it was assigned to the 'Regimental Arzt' or Medical Officer. The tank is in a fixed defensive position with sandbags and earth protecting the thin hull armored plating and road wheels. The tank is armed with a 2cm KwK 30 L/55 gun and was particularly effective in a defensive role, especially against lightly armed opponents.

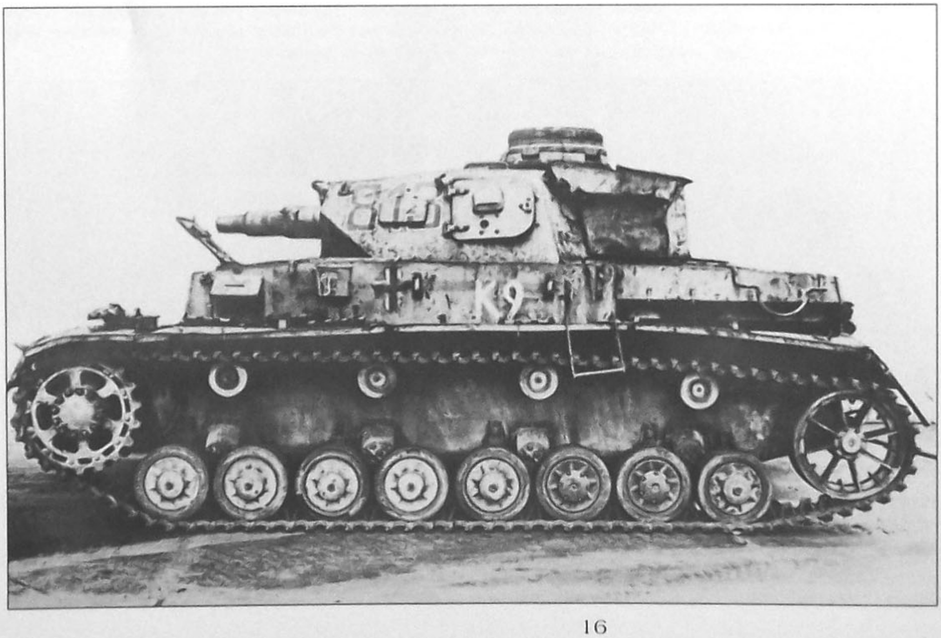
Another photograph of the same Pz.Kpfw.III, this time with two British soldiers posing for the camera sitting on the turret.



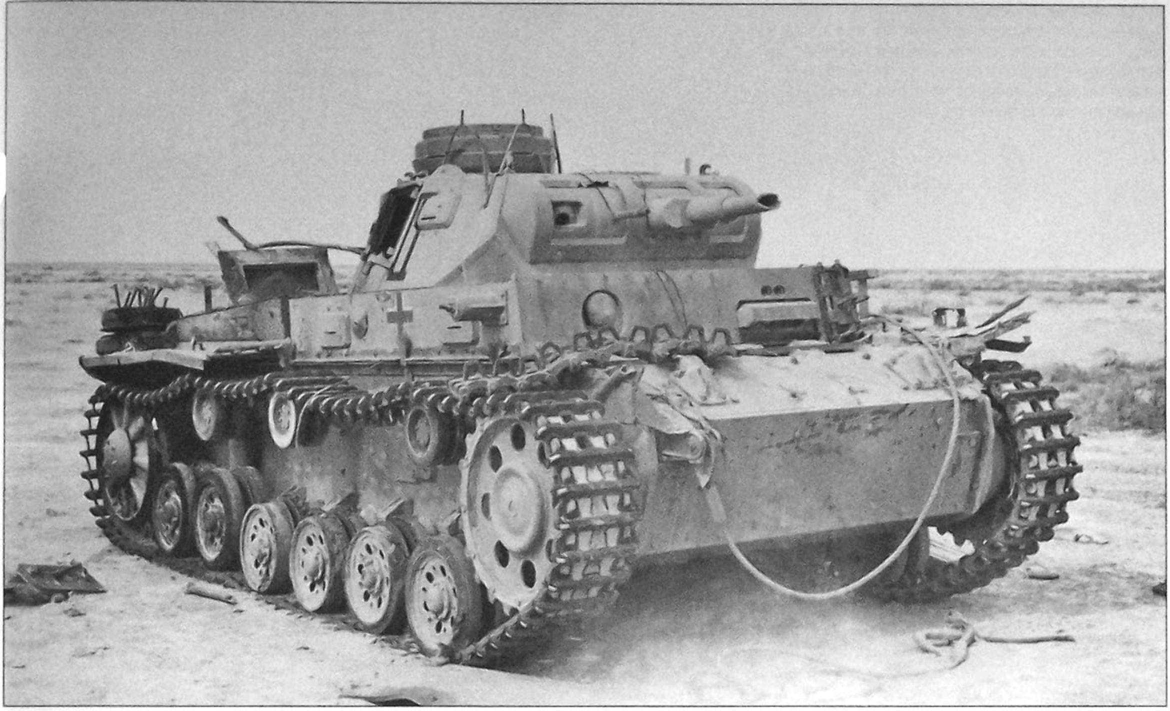
Another dug in Pz.Kpfw.II with the tactical number 'I21' painted in red with a white outline on the side of the turret indicating it was a I.Bataillon staff vehicle.



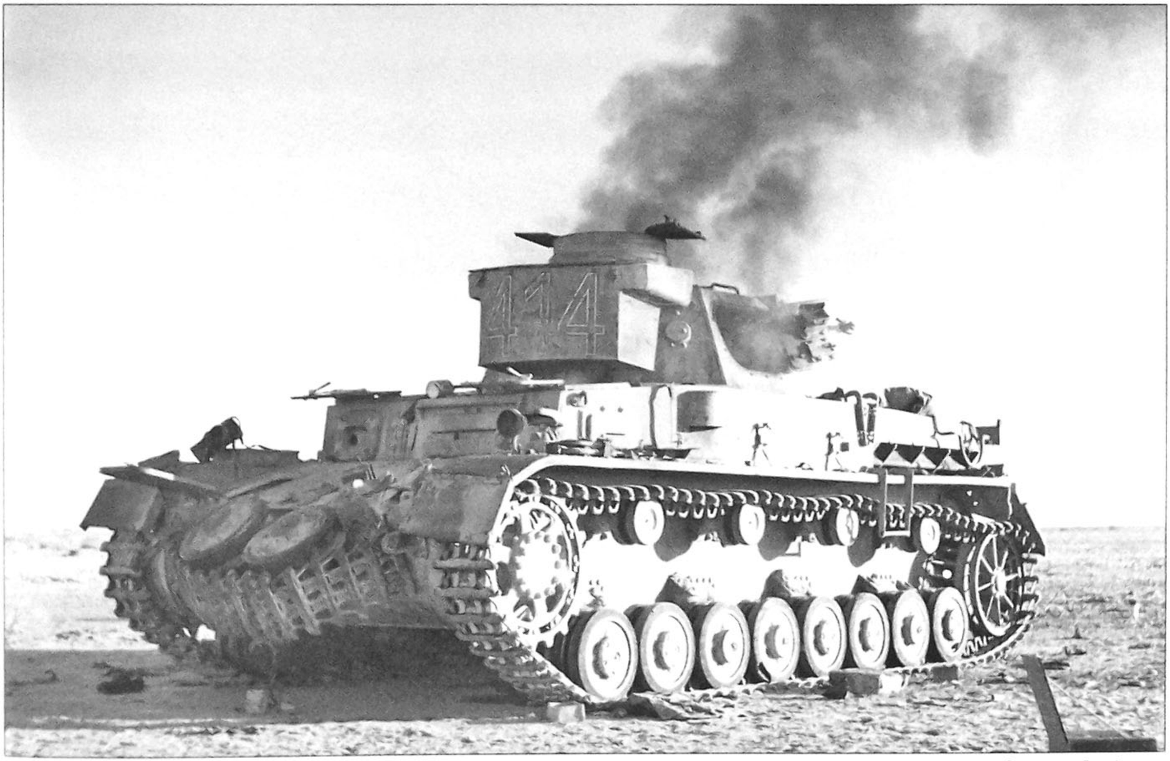
A British soldier examines the 7.5cm KwK L/24 gun barrel of a disabled Pz.Kpfw.IV Ausf.D from Pz.Rgt.5. The vehicle has evidently lost on its tracks, more than likely after receiving an enemy round to its side. Note the engine deck compartment hatch in the open position. A spare road wheel can also be seen attached to the rear engine deck.



A captured Pz.Kpfw.IV Ausf.D from Pz.Rgt.5. This vehicle is painted in overall dark gray with a camouflage scheme of sand yellow. The tactical number '813' is painted in white outline on the side of the turret. On the hull-side a black and white national cross can be seen. The 'K9' was painted on by the British after capture.

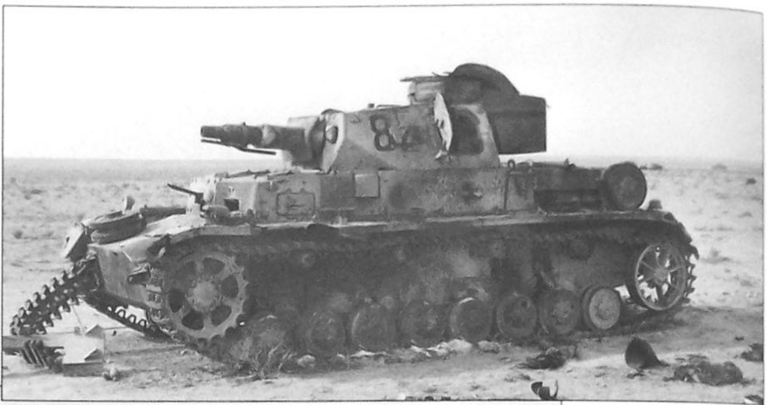


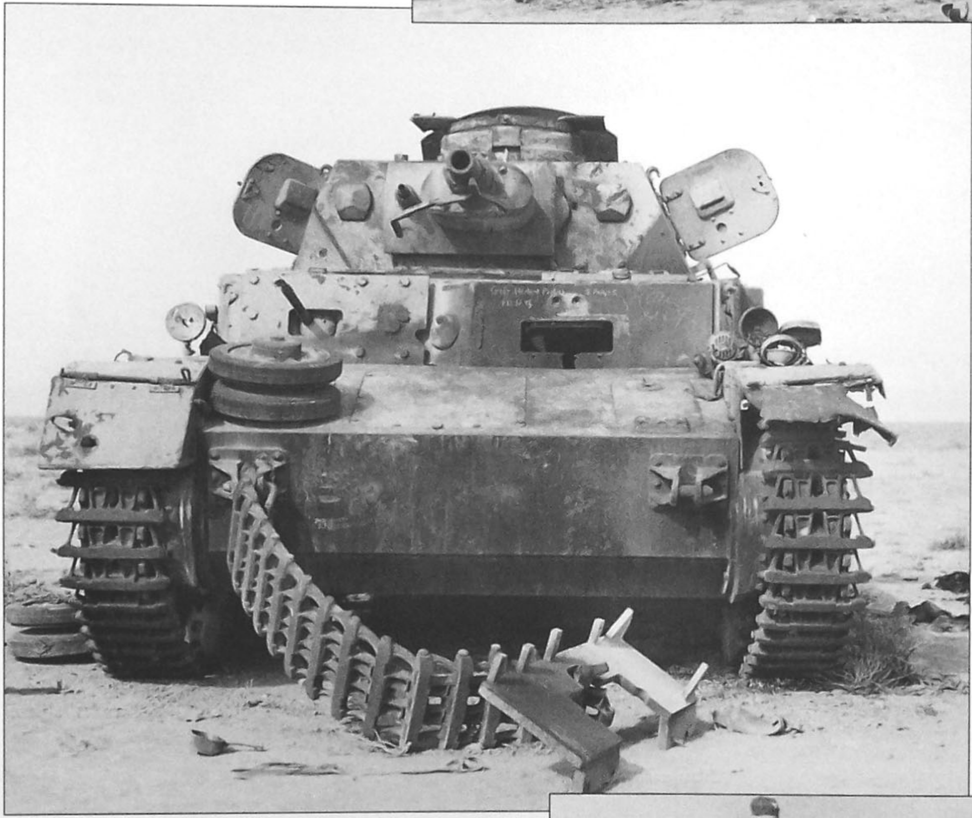
A Pz.Bef.Wg.III Ausf.H abandoned by its crew after being knocked out by an anti-tank round. A large number of these vehicles were used in North Africa.



A Pz.Kpfw.IV Ausf.D from 15.Panzer-Division just after it has been set on fire by the British to keep it from being recovered by the Germans. Smoke can be seen rising into the air from the turret hatch, evidence of an internal fire.

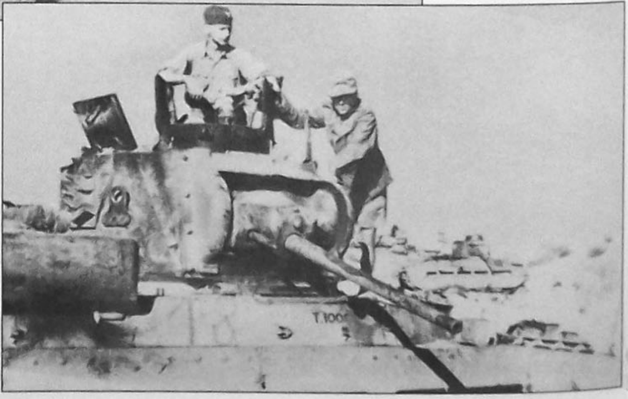
A disabled Pz.Kpfw.IV Ausf.E, which has received a direct hit from anti-tank fire and lost part of its track in the process. The tank is armed with the short-barreled 7.5cm KwK L/24 gun. The vehicle carries a workshop designed stowage box attached to the rear of the turret.



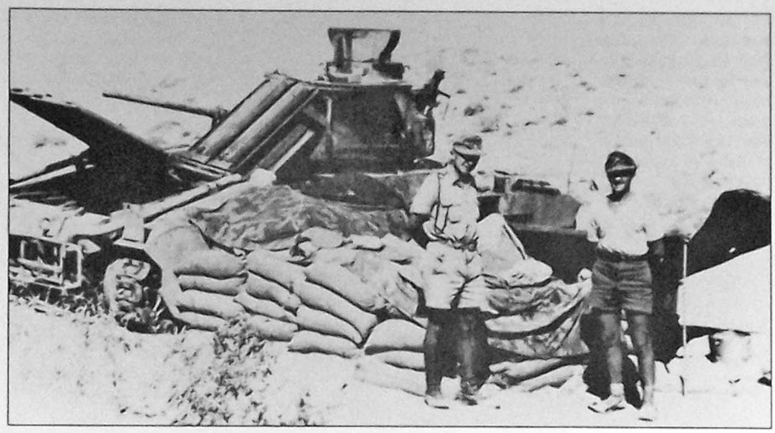


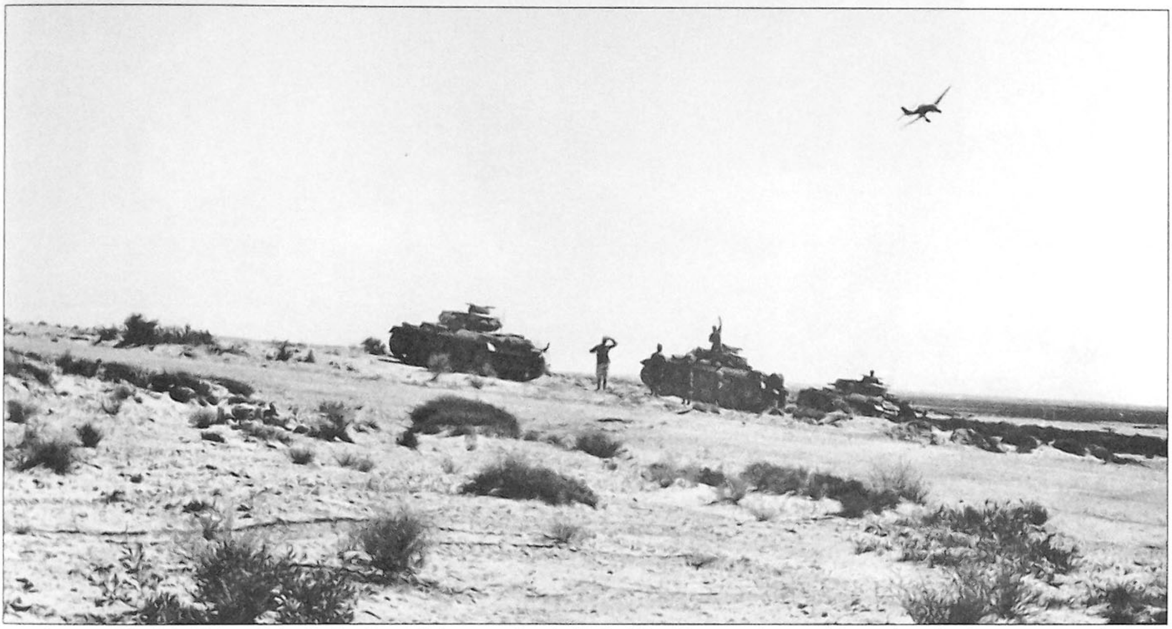
The same Pz.Kpfw.IV Ausf.E. Part of the additional track link on the front of the tank have been ripped away, which probably means that one of the shells that put this vehicle in action has made contact with the front hull. The turret hatches are open, indicating that the crew escaped during the attack.

DAK troops are inspecting a knocked out British Matilda tank, which has received a direct hit from the shell of a Pz.Kpfw.III. Out in the desert panzers usually advanced simultaneously at several different points in strong compact formations, their objective to neutralize the whole area. This British Matilda was just one of many Allied vehicles to be destroyed in this way by superior DAK armored tactics.



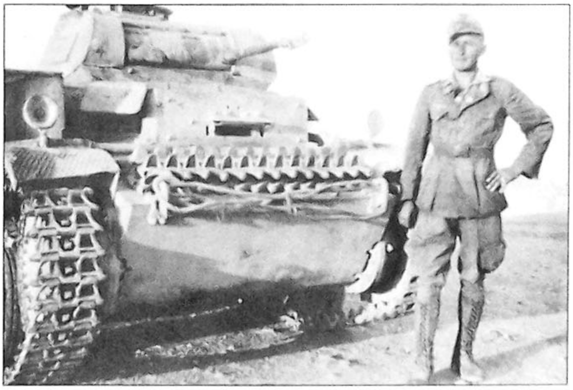
DAK troops utilizing a knocked out British Matilda tank by making a shelter. A number of sandbags have been erected and Zeltbahn has been put to good use in order to try and keep out as much dust and sand particles. When soldiers were short in tents, they would use the well-tested method of combining a number of Zeltbahnen to form two-or four-man 'pup' tents. The method of attaching the Zeltbahn to a destroyed Allied vehicle, however, is even more ingenious.



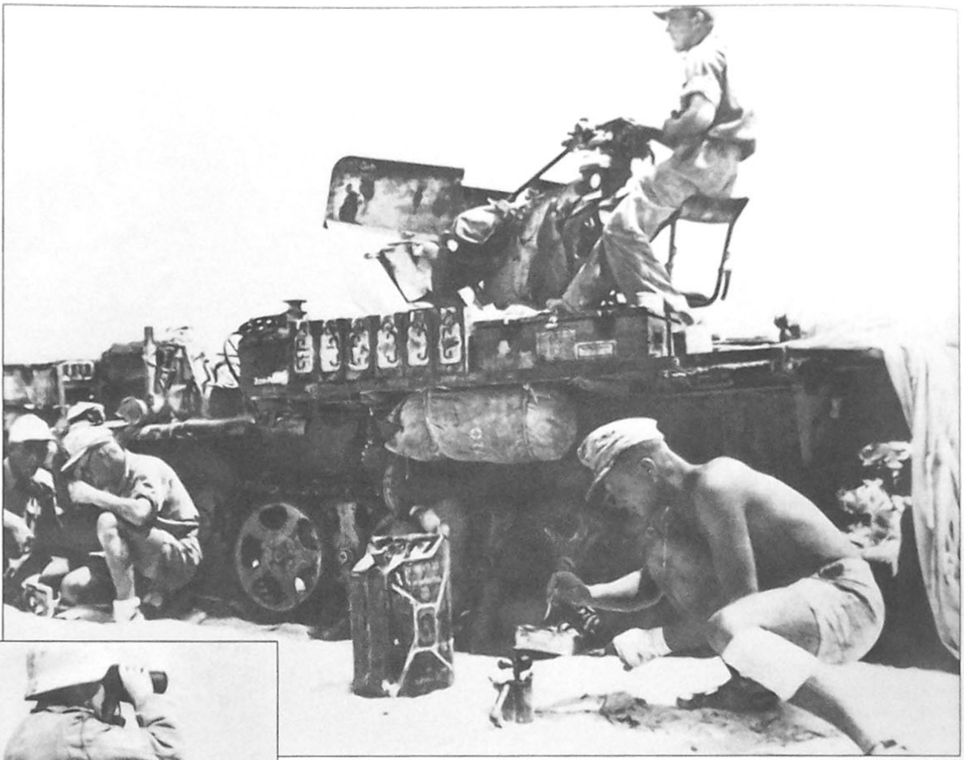


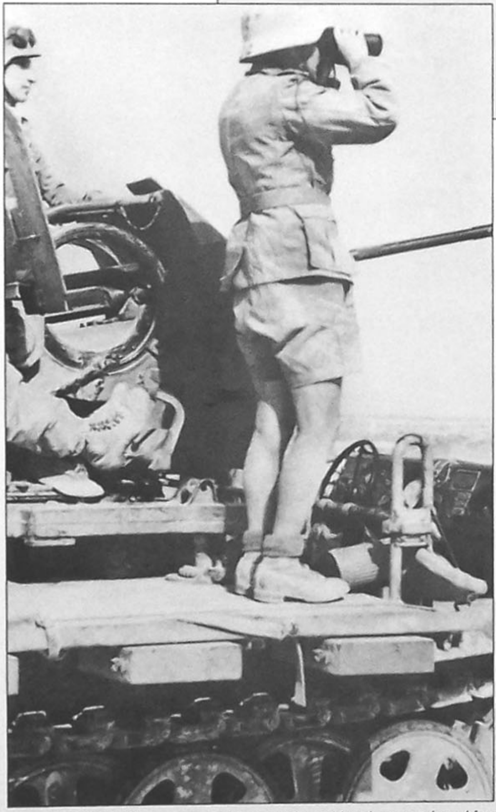
A group of Pz.Kpfw.IIIs have halted in the desert during operations in North Africa. The crew of one tank is captivated by the appearance of a Ju-87 aircraft and raises his arm to greet the bomber as it banks overhead. The Ju-87 was used extensively in North Africa to dive bomb and strafe in order to seek out enemy artillery units and pave the way for armor. In the desert the Germans used Blitzkrieg tactics and deployed armor, motorized infantry and airpower in coordinated attacks for rapid penetration.

A DAK soldier poses for the camera in front of a Pz.Kpfw.II Ausf. A-C. The vehicle is painted in the familiar DAK colors of dark yellow. No other visible markings can be seen. Additional track links have been attached to the hull front in order to help combat heavy anti-tank shells penetrating its thin armored wall.

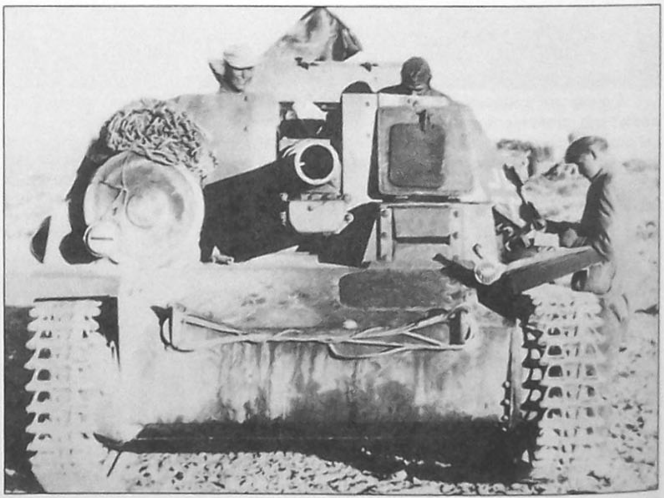


An Sd.Kfz.10/4 half-track with 2cm FlaK 30 gun halts at an intermediate supply base stationed in the middle of the desert. The bandaged soldier on the right appears to be cooking in a captured British mess tin, over a blowlamp.



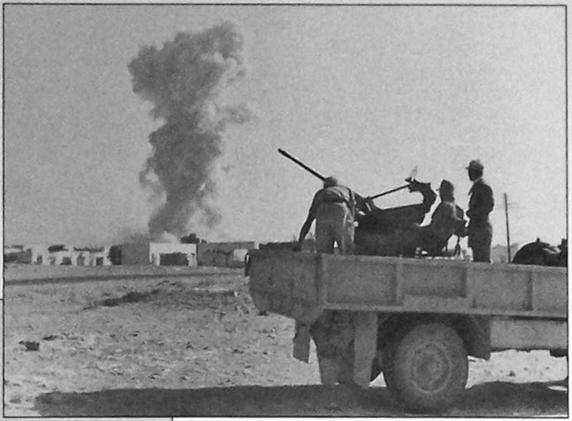


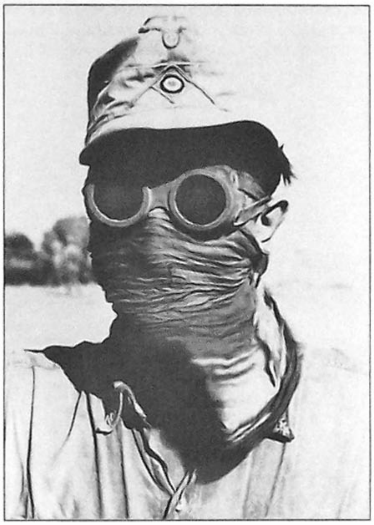
A DAK FlaK crew scour the vast desert landscape ahead for enemy movement. The Sd.Kfz.10/4 half-track mounts a 2cm FlaK 38 and was extensively used not just against aerial, but ground targets too. A DAK FlaK Abteilung normally comprised of two heavy batteries each of four 8.8cm dual purpose towed guns and one light battery of 2cm and 3.7cm guns.



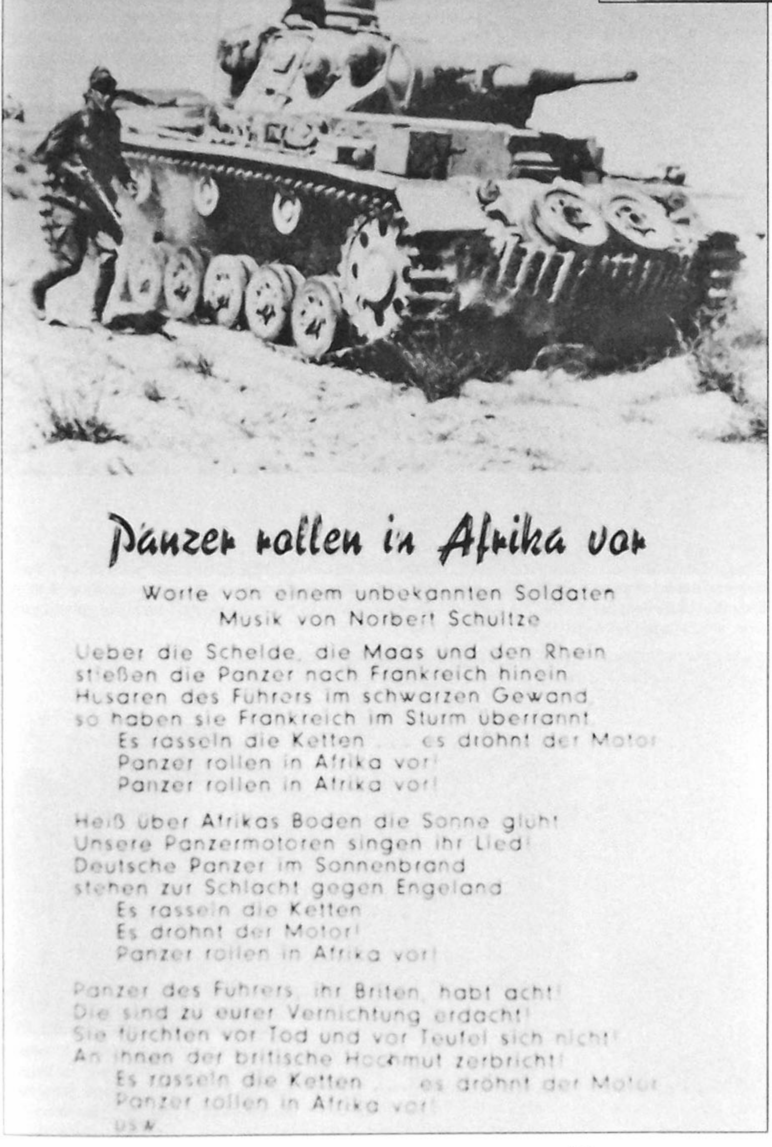
A 15cm heavy infantry gun sIG33 mounted on the hull of a Pz.Kpfw.II somewhere in the desert. This vehicle was primarily used for close support with a cross-country radius of action of 76-miles. The vehicle is painted in the standard dark yellow DAK colors and has a Balkenkreuz of black with a white outline painted on the side of the gun shield.

Mounted on the back of a captured British lorry, a 2cm FlaK 30 light anti-aircraft gun is being used as a support weapon on the ground. The smoke rising into the air is an indication that a heavier-caliber shell has probably hit the building. This FlaK gun was widely used in North Africa by the DAK and was very effective. It was not only deadly against low-flying aircraft, but also against ground targets as well.





A DAK motorcyclist taking precautions against the chocking desert sand with a scarf tightly wrapped around his mouth and nose, and wearing a pair of aviator goggles. He can also be seen wearing the distinctive DAK Feldmütze (cap). His shirt was issued to all troops in North Africa and was very similar to the field-gray army shirt, but this garment was made of a hardwearing cotton drill dyed to a stylish sand color. However, in only a matter of weeks the shirt soon altered color by the bleaching effect of the sun.



Panzer rollen in Afrika vor

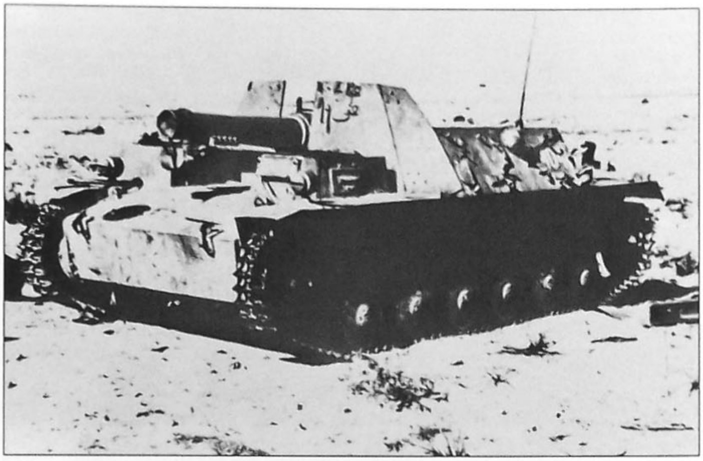
Worte von einem unbekannten Soldaten
Musik von Norbert Schultze

Ueber die Schelde, die Maas und den Rhein
stießen die Panzer nach Frankreich hinein
Husaren des Führers im schwarzen Gewand
so haben sie Frankreich im Sturm überrannt.
Es rasseln die Ketten ... es dröhnt der Motor
Panzer rollen in Afrika vor!
Panzer rollen in Afrika vor!

Heiß über Afrikas Boden die Sonne glüht
Unsere Panzermotoren singen ihr Lied!
Deutsche Panzer im Sonnenbrand
stehen zur Schlacht gegen Engeland
Es rasseln die Ketten
Es dröhnt der Motor!
Panzer rollen in Afrika vor!

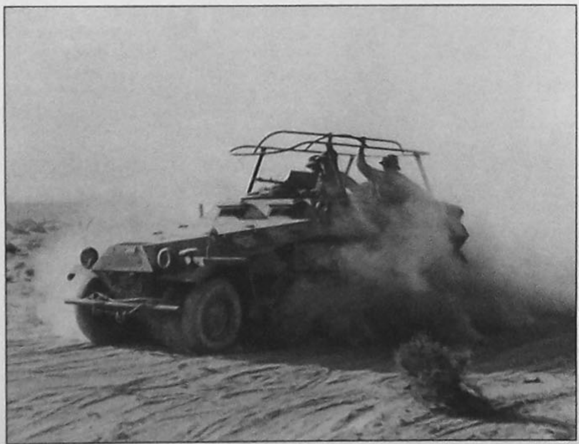
Panzer des Führers, ihr Briten, habt acht!
Die sind zu eurer Vernichtung erdacht!
Sie fürchten vor Tod und vor Teufel sich nicht!
An ihnen der britische Hochmut zerbricht!
Es rasseln die Ketten ... es dröhnt der Motor
Panzer rollen in Afrika vor!
usw.

Here is a music sheet distributed among the men of the DAK. It is called 'Panzers Roll into Africa'. The words are reputedly written by an unknown soldier and were specifically written to spur on the men of the DAK and make them victorious.

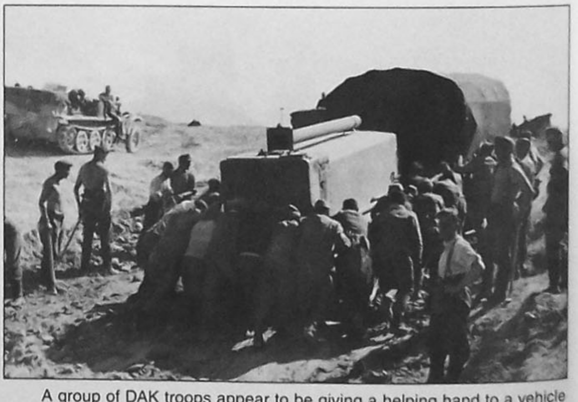


A 15cm sIG33 auf Pz.II has run out of fuel and been abandoned by its crew. The gun of this vehicle is mounted on the chassis of a Pz.Kpfw.II and there are six wheel bogie instead of the normal five. This vehicle was primarily used for close infantry support. It is painted in overall dark yellow and has a tactical number '404' painted in light yellow on the side of the hull.

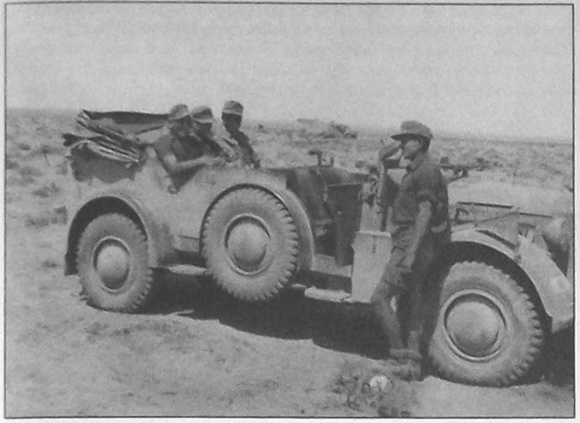
A variety of vehicles have apparently come to a halt in the desert along deserted British defenses, and it already appears to have seen significant fighting in the area. Discarded and empty ammunition boxes and other battlefield booty litter the barbed wire entanglements and meagre defenses. This photograph was taken during the later stages of Operation 'Battleaxe', which raged between 15 and 17 June 1941.



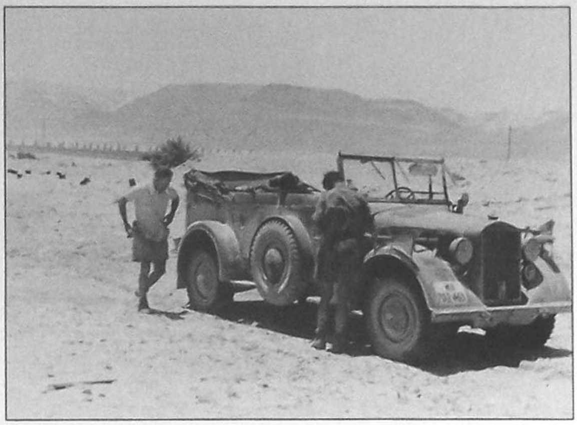
An Sd.Kfz.251/3 Ausf.B command vehicle with frame antennae moves through the desert creating a dust cloud.



A group of DAK troops appear to be giving a helping hand to a vehicle struggling up a steep sandy gradient. The armored vehicle is towing supplies, probably ammunition. To the left of the vehicle is a stationary Sd.Kfz.10 half-track, which, by its appearance is probably painted in its original dark gray camouflage scheme.

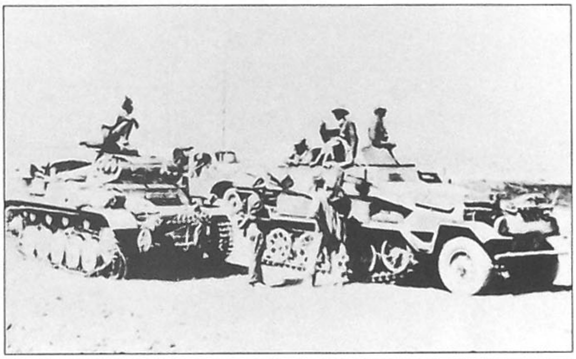


Out in the desert a light Kfz.15 Horch cross-country car has come to a halt. The driver appears to be returning to his vehicle. His passengers are more than likely officers on a field visit to the front lines.

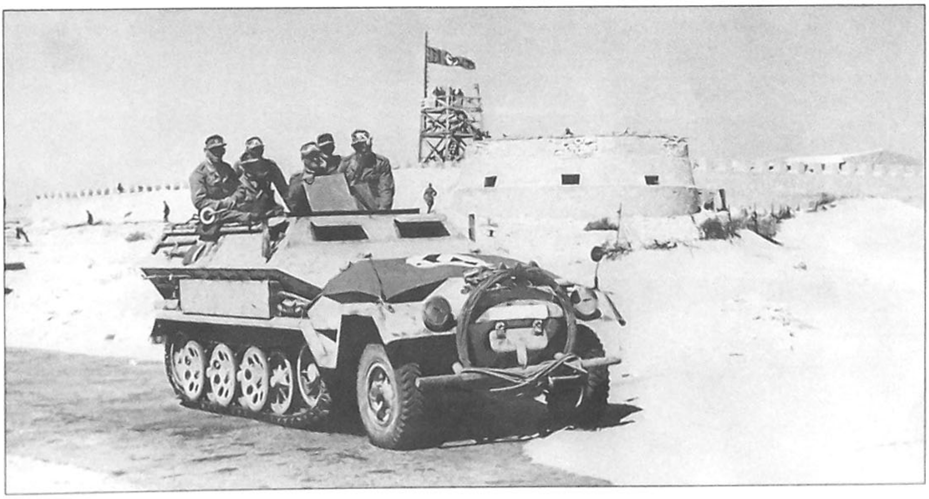


A light Kfz.15 Horch cross-country car has halted in the desert. The license plate is 'WH 702 460' and is painted in black with a white backing on the right mudguard. On the left mudguard painted also in white is the vehicle's tactical sign denoting that it belongs to a brigade headquarters.

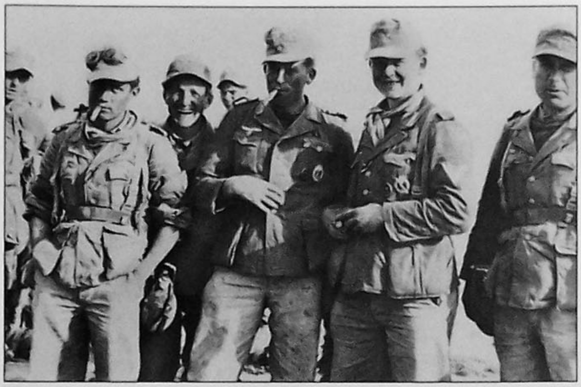
DAK officers survey the terrain ahead. In the distance, armored vehicles protected by high ground halt before resuming their drive across the desert. The vehicle on the right appears to be an Sd.Kfz.10/4 mounting a 2cm FlaK 38. This weapon was primarily used out in the desert to pin down infantry following up behind a tank attack.



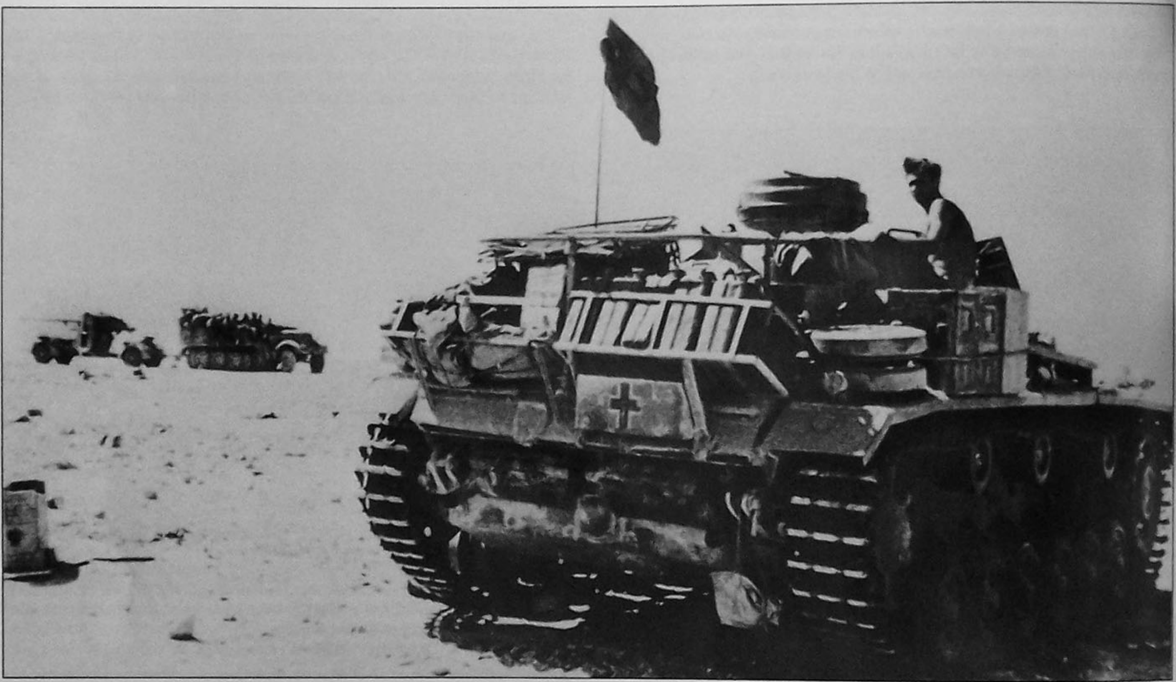
Here a Pz.Kpfw.II Ausf.A-C halts alongside an Sd.Kfz.251 Ausf.B halftrack during operations in the second half of 1941. Both vehicles are more than likely been painted in overall dark yellow to help conceal them from Allied fighters or well concealed anti-tank gunners. The Pz.Kpfw.II is carrying various provisions, and track links have been attached to the front of the hull to help protect its thin armor.



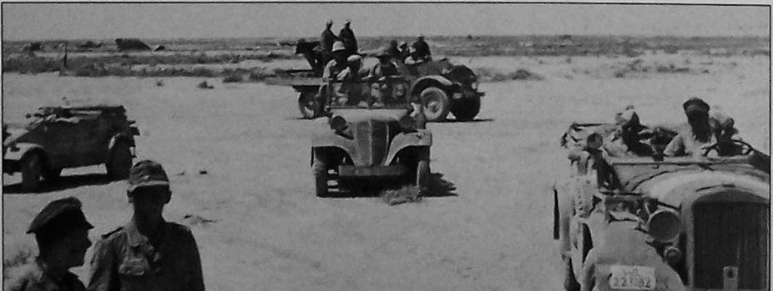
An Sd.Kfz.251 Ausf.B halftrack passes a village somewhere in the Western Desert in 1941. The vehicle is heavily laden with supplies and troops destined for the front lines. Out in the desert the Sd.Kfz.251 proved a useful supplement to the many truck-borne rifle infantry of the DAK panzer divisions. In North Africa the Sd.Kfz.251 was not intended to be a combat vehicle, but simply a transporter of infantry to the forward edge of the battlefield.



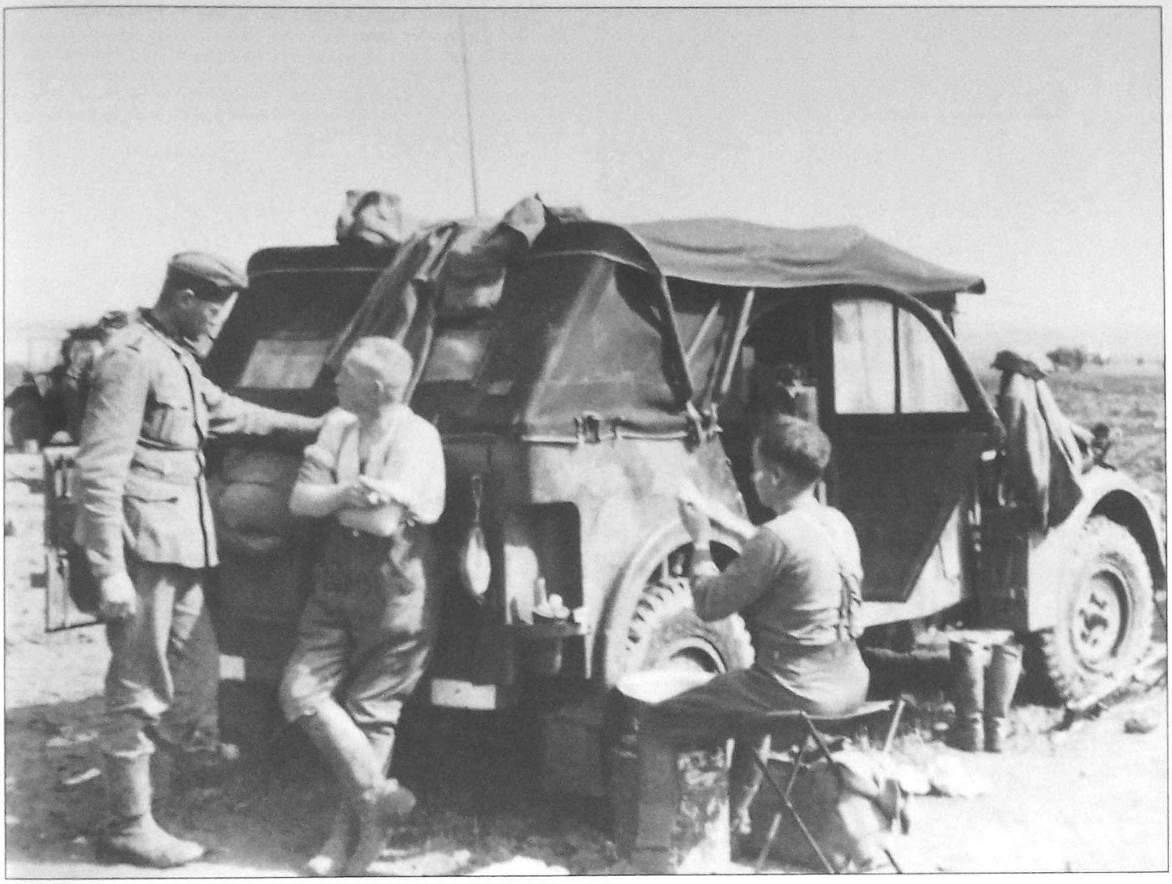
A group of DAK troops pose for the camera. All the men are wearing the same type of tropical field service tunic and Feldmütze headgear. The bleaching effects of the combination of heat, sun and desert air on the uniforms made them look dirty, resulting in the alteration of the original colors and making them difficult to distinguish.



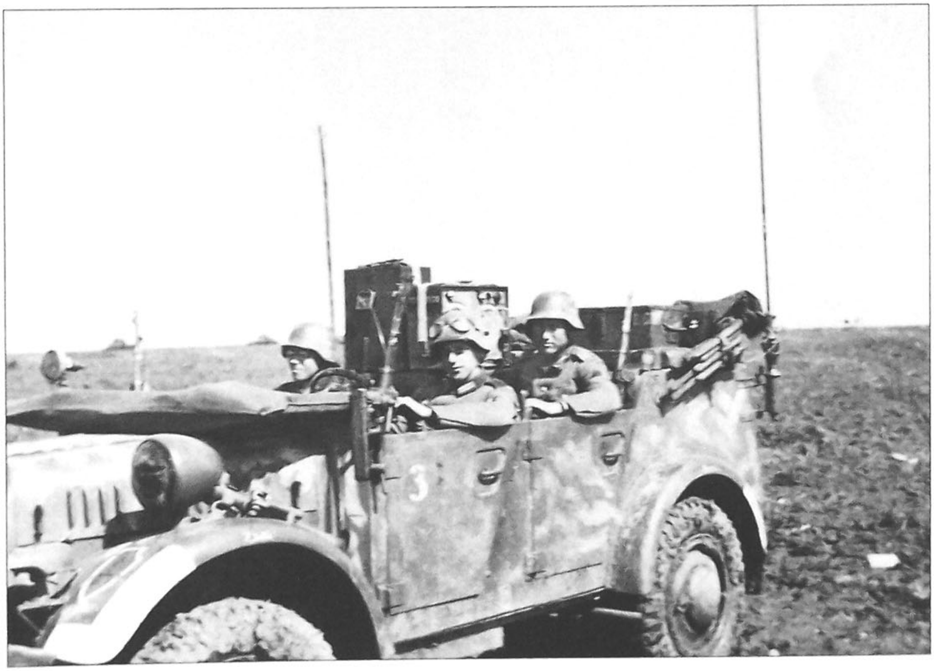
A very well laden Pz.Bef.Wg.III Ausf.H somewhere in the desert. Note the jerry cans and ammunition boxes and the specially built rack for containing all the supplies. In the background is a half-track with a full complement of crew towing an 8.8cm FlaK 18.



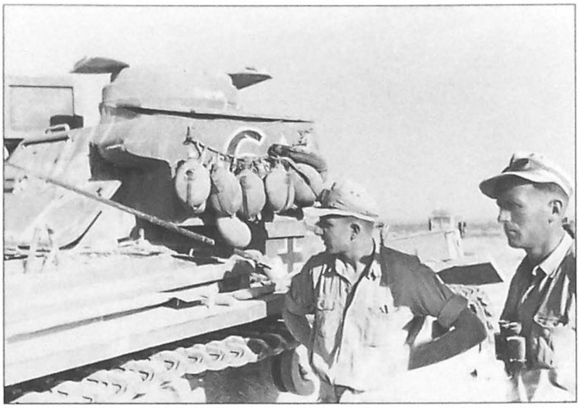
Light Horch cross-country cars halt in the open desert. All the vehicles are painted in dark yellow and carry the national flag draped over the engine deck for aerial recognition. The vehicle on the left is a Volkswagen Kfz.1 Kübelwagen.



A Horch cross-country car with a crudely applied coat of dark yellow paint over the original dark gray color. The application of paint with a brush was widely adopted by DAK armored units, but the crude coating frequently left vehicles with patches of the original gray.

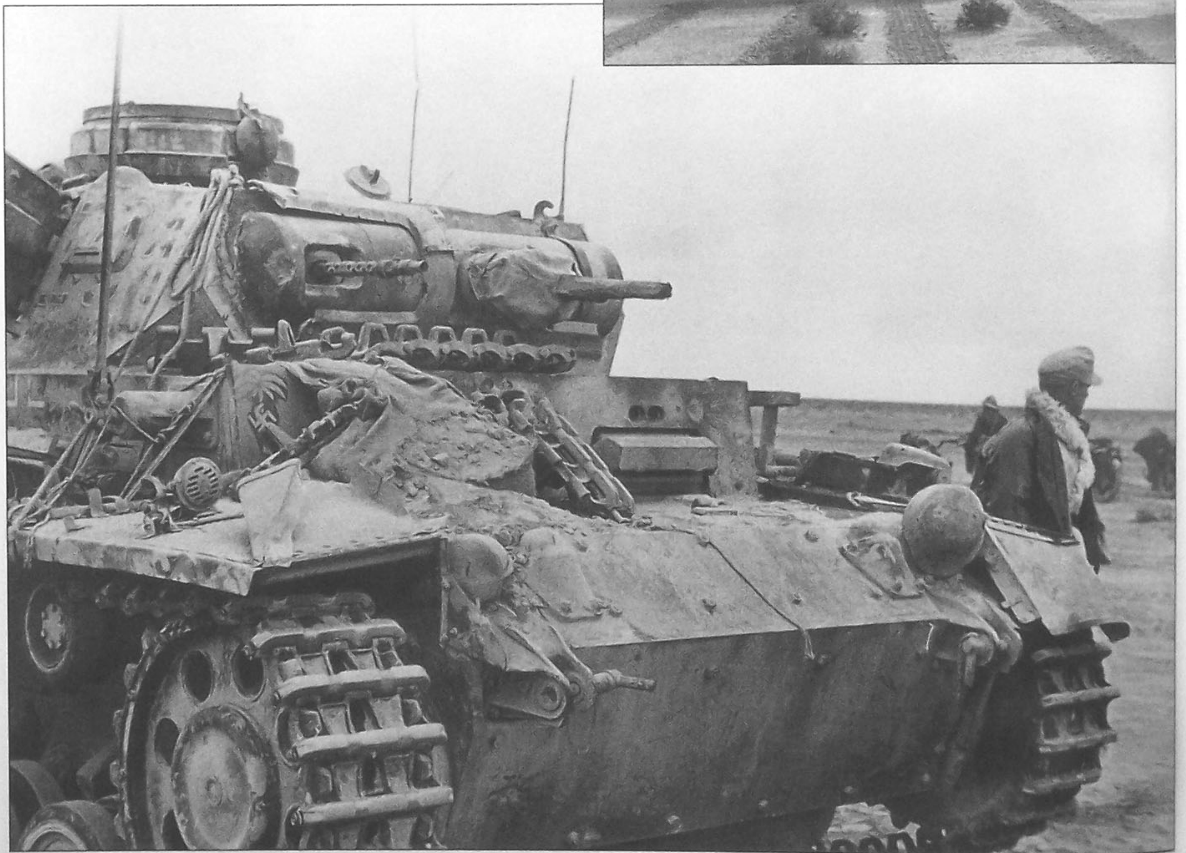


Three crewmembers of a Horch radio car pose for the camera. The number '3' painted in white on the door is a sign for the 3rd company of a signals unit. These vehicles were equipped with a long-range radio set and were most often used by signals units of motorized infantry and panzer division, and also Korps and Armee headquarters. The vehicle is still painted in a dark gray base, sprayed over with a camouflage pattern of dark sand.

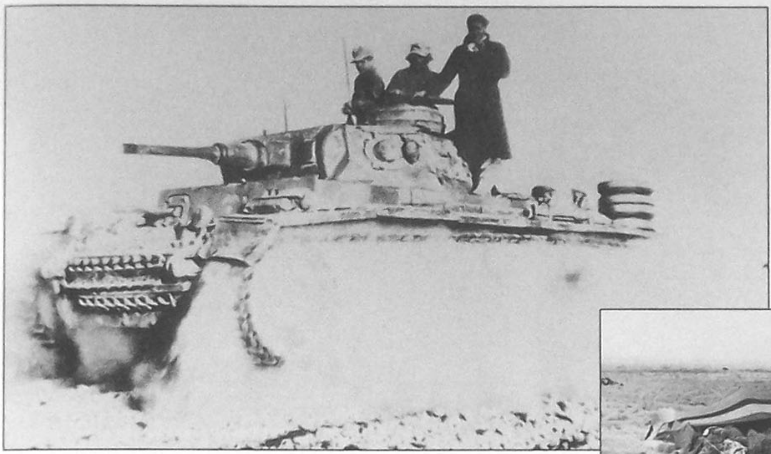


Two crewmembers are standing next to their Pz.Kpfw.III Ausf.G out in the open desert. This particular panzer type was used extensively as the main striking force in the campaign in North Africa. It had a dominant role in tank-against-tank combat. With its powerful 5cm gun, it had almost complete advantage over the majority of tanks it encountered in the desert. Note on the side of the turret, hidden behind the water bottles, is the tactical number '6' painted in red with a white outline.

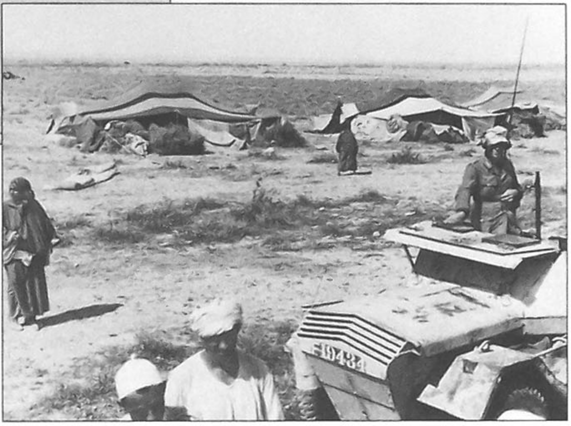
On the move is a Pz.Kpfw.III belonging to the 21.Panzer-Division. Out in the desert, panzer tactics, particularly those employed by the Pz.Kpfw.III, usually began with opening fire about 1600m, which was normally beyond the effective range of hostile weapons. Once contact had been made, the speed of advance was immediately reduced, but its 5cm gun was used in order to keep the enemy tanks out of range. Its main objective was to knock out anti-tank guns and all visible field guns.



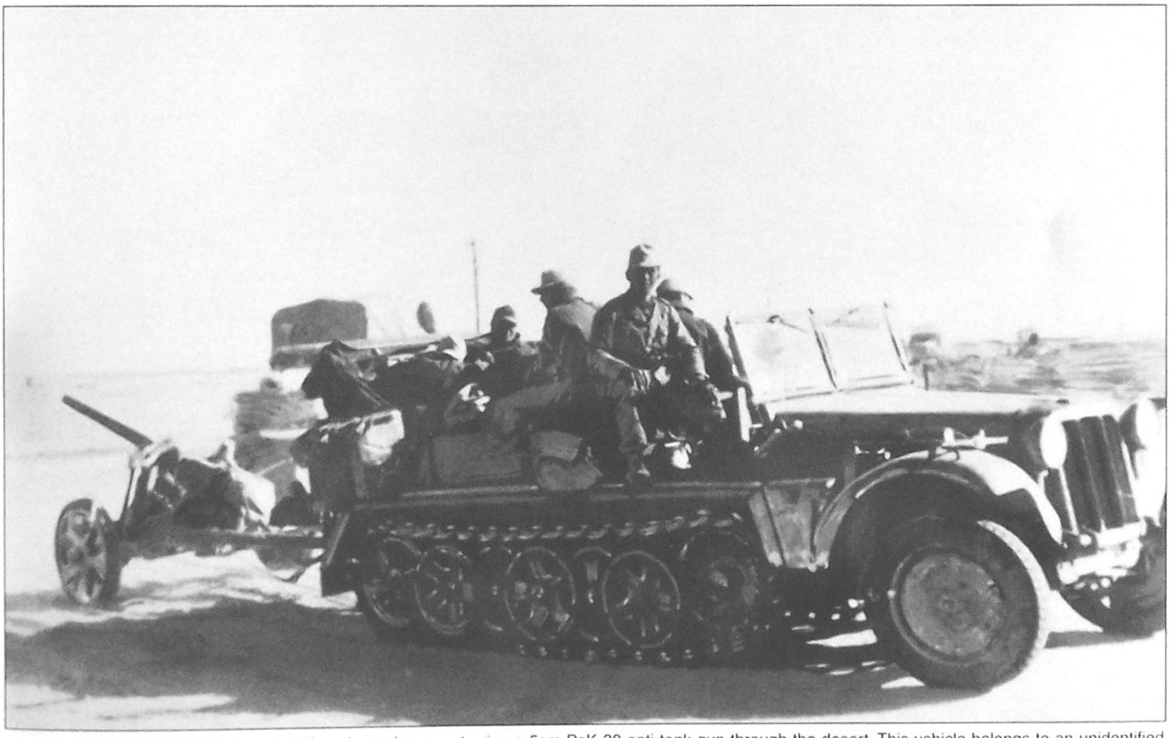
A damaged Pz.Bef.Wg. III Ausf.H command tank from 21.Panzer-Division has halted somewhere out in the desert in 1941. No markings on this vehicle are visible except for the standard Balkenkreuz painted in black with a white outline on the side of the tank. The vehicle has received a camouflage scheme of dark yellow sprayed over the original dark gray color.



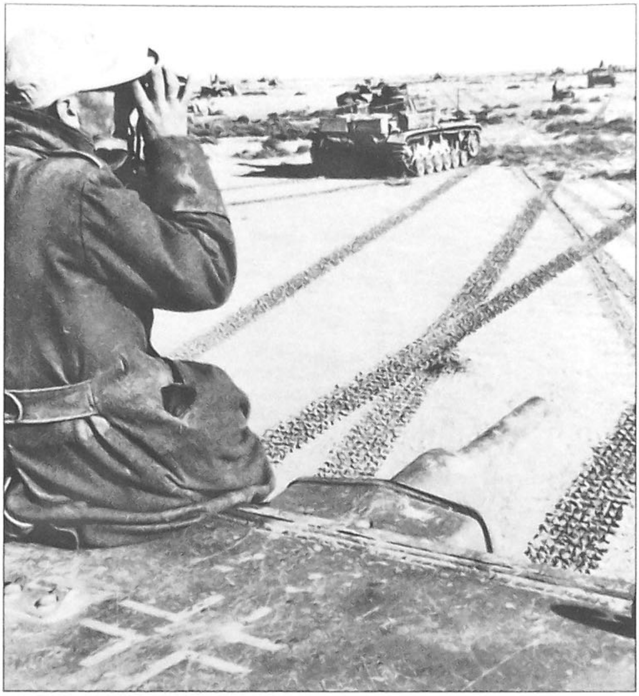
On the move is a Pz.Kpfw.III Ausf.H belonging to the 21.Panzer-Division. The sand is clearly being churned up by the tank's tracks, creating large amounts of billowing dust clouds that could be seen for miles. Out in the desert, frontal tank assaults were not often deployed in offensive tactics: main attacks were directed against one or both flanks. Panzer tactics, particularly those employed by Pz.Kpfw.IIIs, usually began with opening fire about 1600m, which was normally beyond the effective range of hostile weapons.

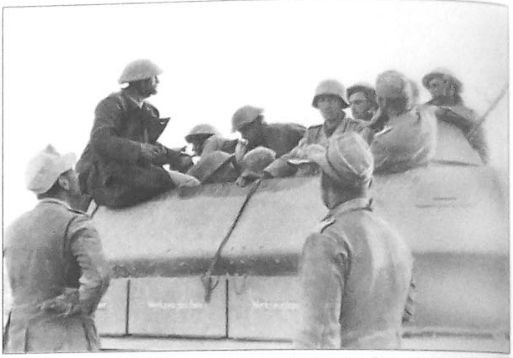


A captured British Daimler armored car still displaying the license plate number 'F19434', which is painted in white on a black background. This vehicle belongs to a DAK signals battalion and has come to a halt inside an encampment. Armored signals vehicles accompanied the advancing tanks wherever they went, and supplied the communications necessary for the commanders to control their force effectively.



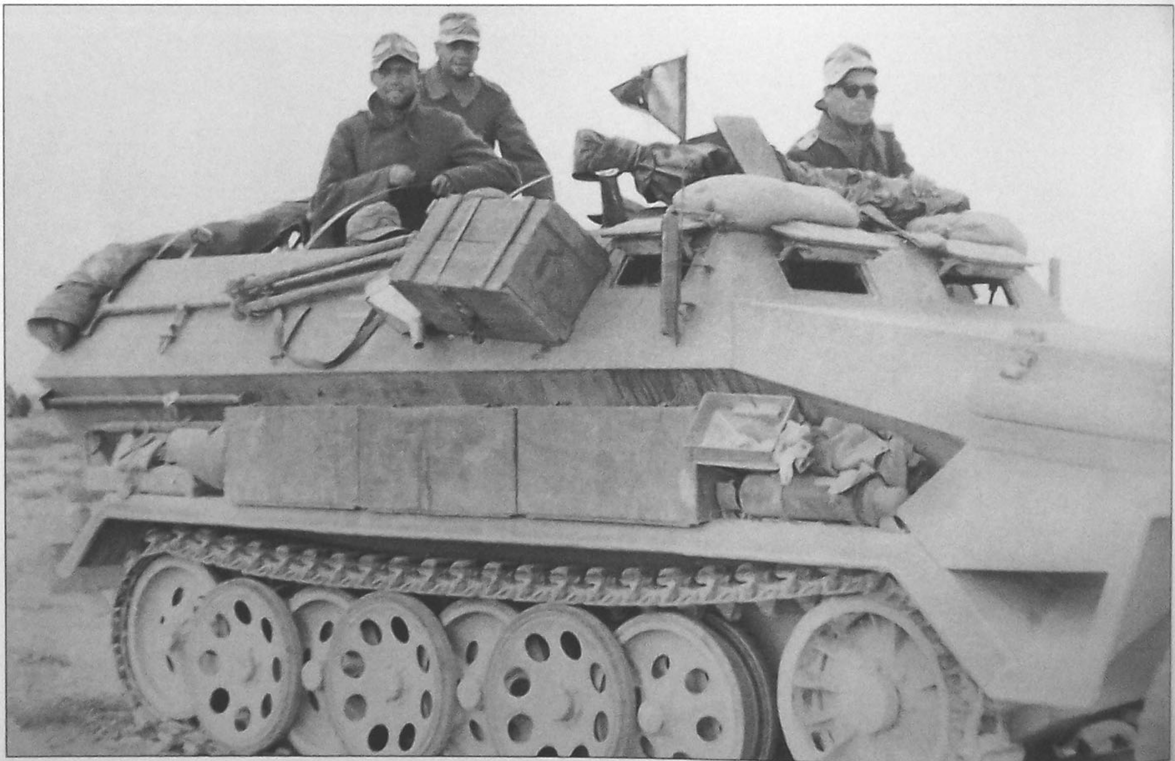
In this photograph an Sd.Kfz.10 half-track can be seen towing a 5cm PaK 38 anti-tank gun through the desert. This vehicle belongs to an unidentified Panzerjäger Abteilung. Each company in the battalion contained a light platoon of four 3.7cm anti-tank guns, and two medium platoons each with three 5cm anti-tank guns. The total DAK battalion compliment was 12 x 3.7cm and 18 x 5cm anti-tank guns. In attack they were usually given the task of defending the flanks, and also seen frequently attacking enemy tanks.



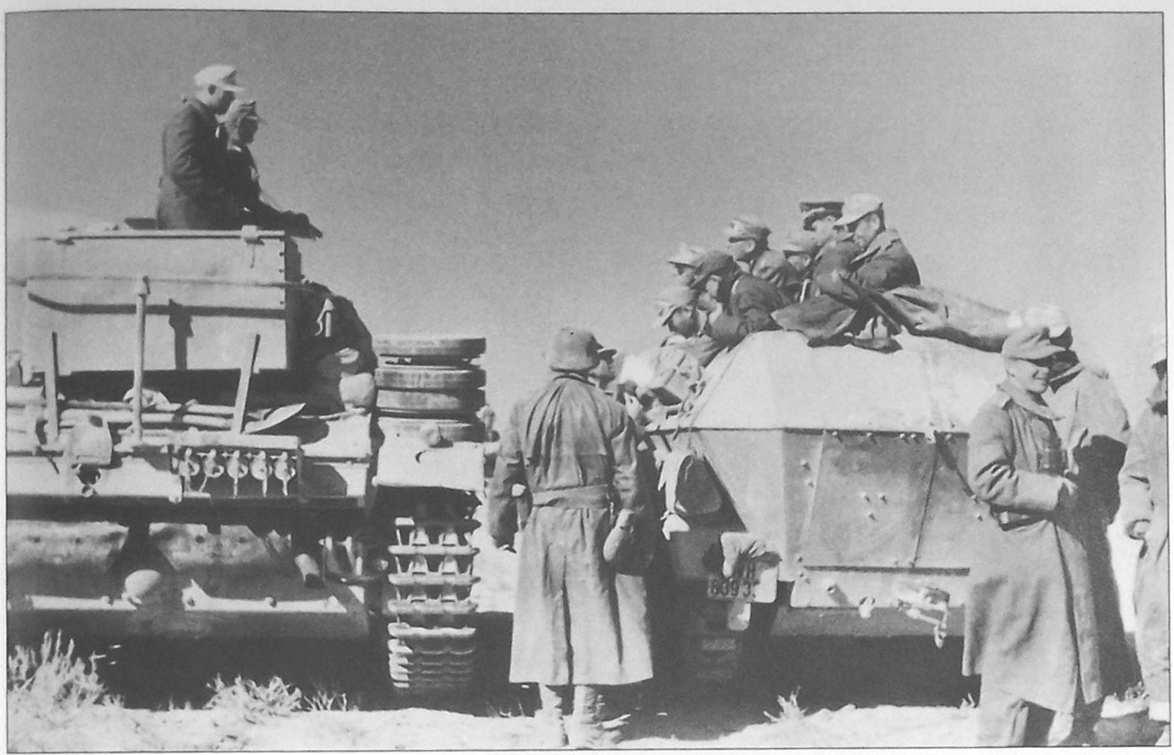


A group of British troops captured by the Panzer-Regiment.8 being transported to the rear inside an Sd.Kfz.251 Ausf.C half-track. Note one of the regiment's soldiers inside the half-track armed with the MG-34 machinegun. The vehicle can clearly be seen painted in overall yellow. Of interest is the lettering 'Werkzeugkasten', which is painted in white on the side of the stowage bins of the half-track.

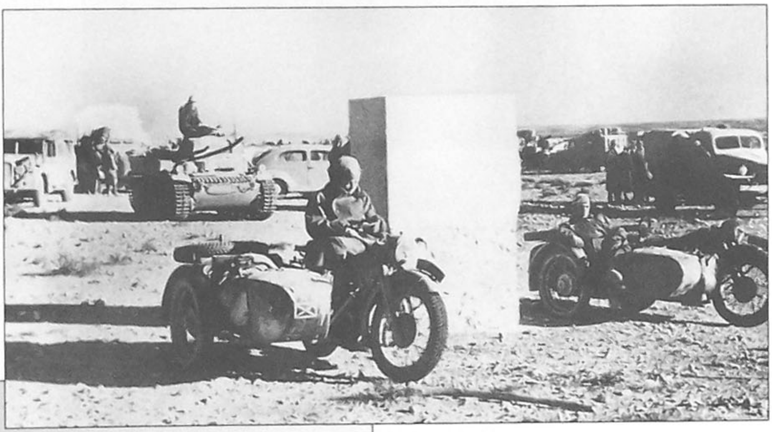
On board a Pz.Bef.Wg.III Ausf.H, the DAK commander scours the terrain ahead of him using his Zeiss binoculars. The vehicle has received a crude camouflage coating of dark yellow with traces of original dark gray appearing in areas on the hull. The tank has a standard national cross painted in black with a white outline on the roof of the turret. The main gun is a dummy, vehicle defense being provided by the MG-34 machine gun in a ball mount beside it.



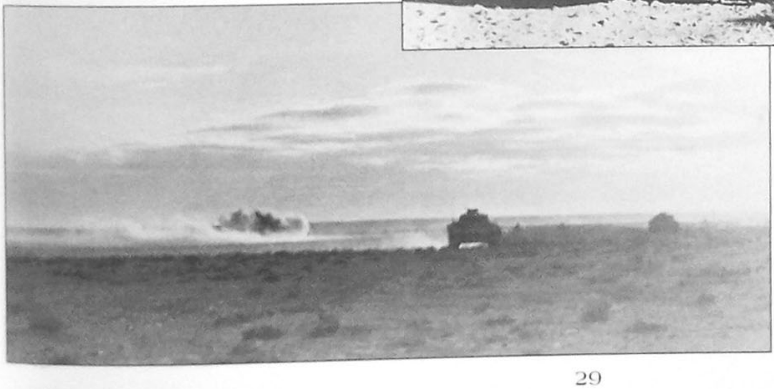
A Sd.Kfz.251 Ausf.B command half-track has halted in the desert. Of interest is the MG-34 machine gun mounted on top of the vehicle, which has been wrapped in some canvas material in order to protect it against the desert sand. The half-track carries a hood and, like most DAK vehicles, is more than likely carrying the white transverse air recognition stripe. The half-track is painted in overall dark yellow and carries the divisional command pennant to denote the presence of an officer.



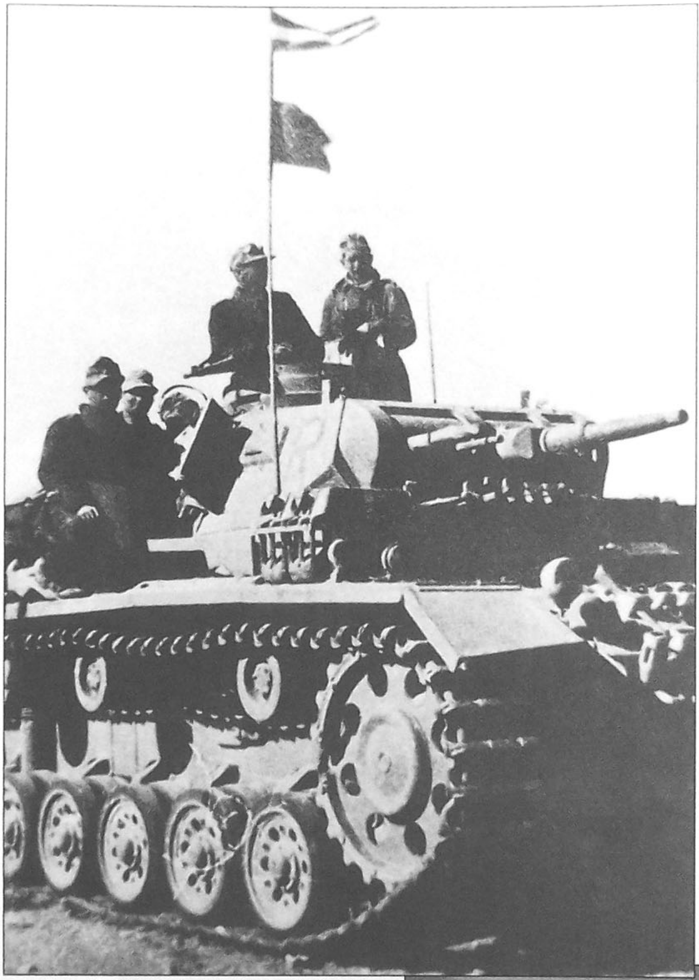
Success in the desert has now been restored. These troops from Pz.Rgt.5 have come to a halt in the Libyan Desert. On the right is a Sd.Kfz.251 half-track and on the left stands a well-laden Pz.Bef.Wg.III Ausf.H, which is carrying a large stowage bin on the engine deck. Inside the box is the equipment needed to sustain the crew out in the harsh desert.



Out in the desert a motorcycle combination has halted next to another motorcycle combination. Both these motorcycles are probably attached to a reconnaissance unit. Behind these motorcycles is a stationary Pz.Kpfw.II. Motorcycles were very versatile machines enabling the riders to survey enemy positions until they encountered enemy fire. They then were able to return swiftly with important data and other pieces of vital information relating to the location and strength of the enemy.



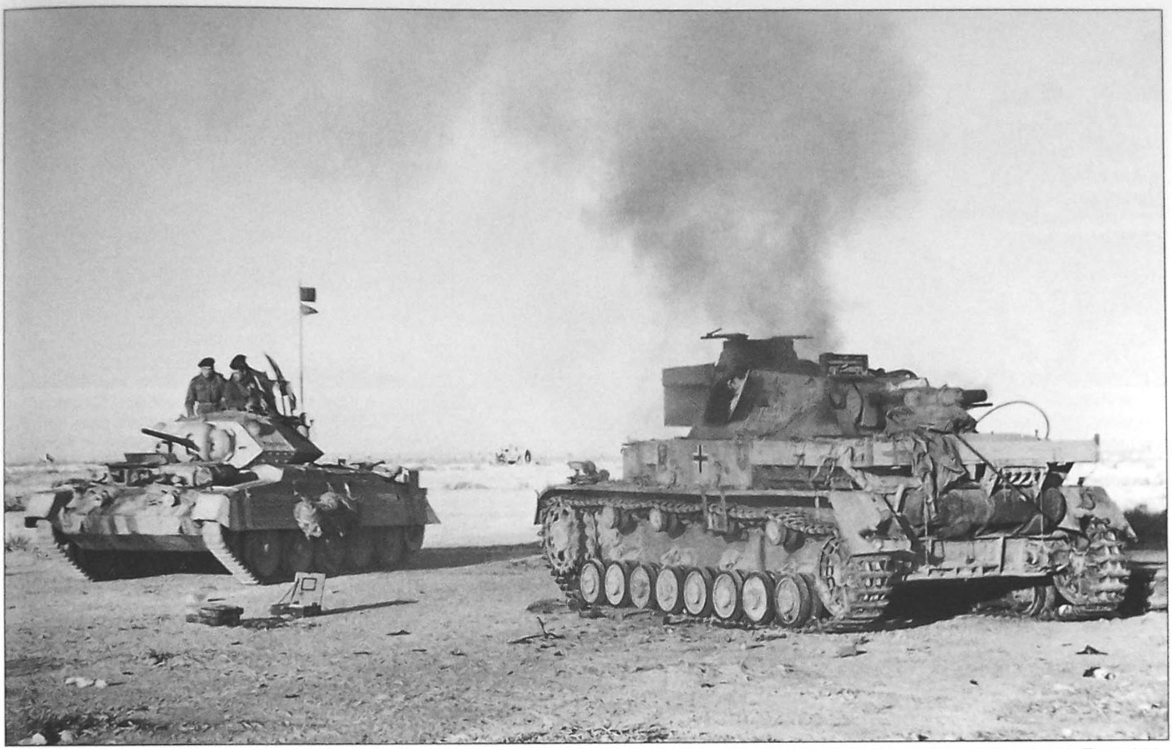
Out in the open desert vehicles belonging to the 21.Panzer-Division move forward in the familiar 'V' style formation. There appears to be a Pz.Kpfw.III and a number of other unidentified vehicles advancing through the desert, all creating dust clouds in their wake.



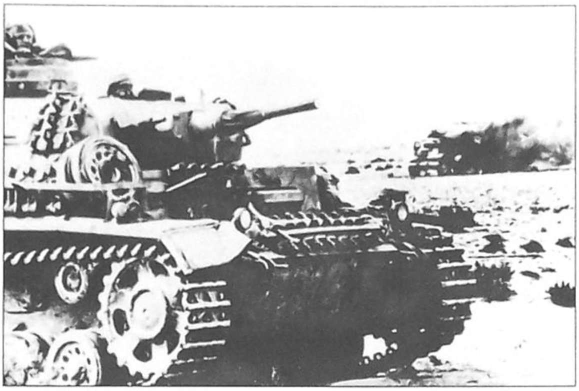
Rommel giving a helping hand after his staff car has become stuck in the sand. This photograph vividly illustrates that despite being the highest-ranking officer in the DAK, he still retained close contact with ordinary soldiers and was not adverse to lending help wherever and whenever it was needed. It can be truthfully said that Rommel was unique among all the senior German commanders and was universally respected and admired by both friends and foe alike.

A Pz.Bef.Wg.III Ausf.H staff vehicle rolls through the desert. The tank is painted in overall dark yellow and carries the letter 'R' painted in red on the side of the turret. The letter 'R' signifies that it is a regimental staff vehicle. The tank is also displaying a command pennant for a panzer division in the DAK, which is painted in white, red and black.

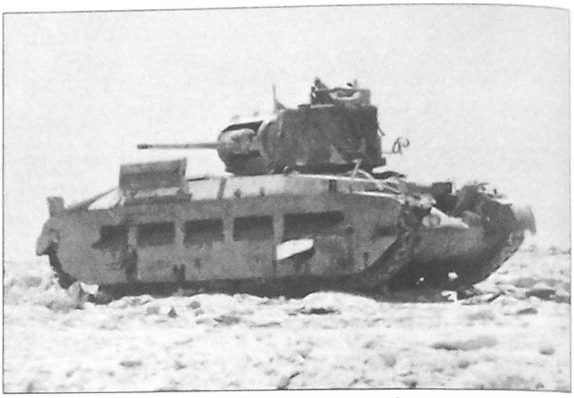
A British soldier runs for cover following a brutal attack by British tanks near the Halfaya Pass. During the battle this Pz.Kpfw.IV was surrounded, and as it tried to withdraw through a series of merciless exchanges of fire a shell slammed into the side of its armor bringing the tank to a halt, and burning alive all the crew trapped inside.



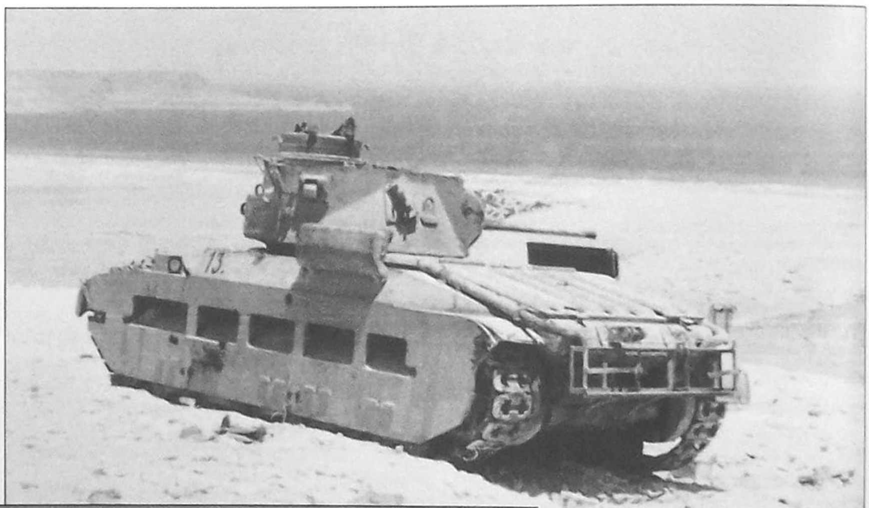
A Pz.Kpfw.IV Ausf.D has been knocked out of action. Due to an internal fire black smoke can be seen rising in to the air from the turret hatch. The vehicle is painted in dark sand with a camouflage scheme of brown spots sprayed over the whole tank. This photograph was taken in late 1941.



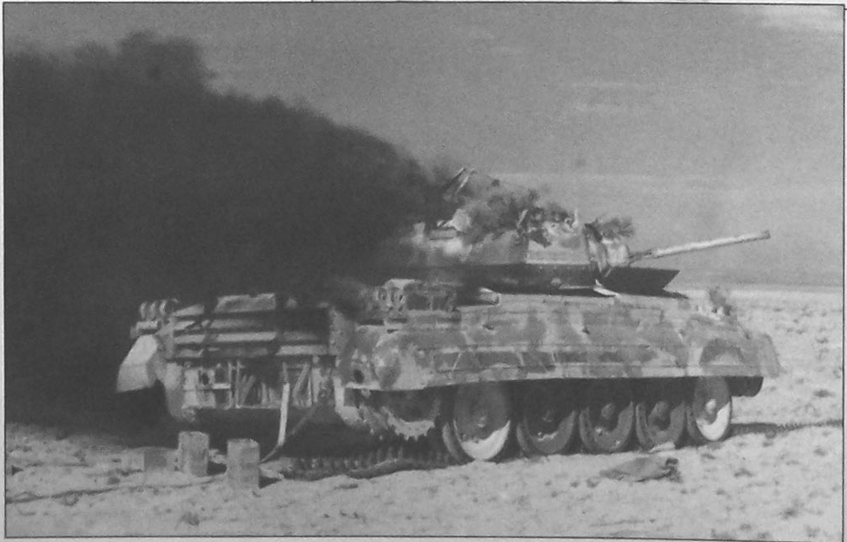
A Pz.Kpfw.III Ausf.H in action during the British offensive, Operation 'Crusader', in November 1941. In the distance an enemy vehicle can be seen ablaze following a heavy armored contact in the area. The desert was a perfect hunting ground for the tank and the Pz.Kpfw.III was the perfect vehicle to utilize its surroundings to the full and make advantage against under-gunned enemy tanks.



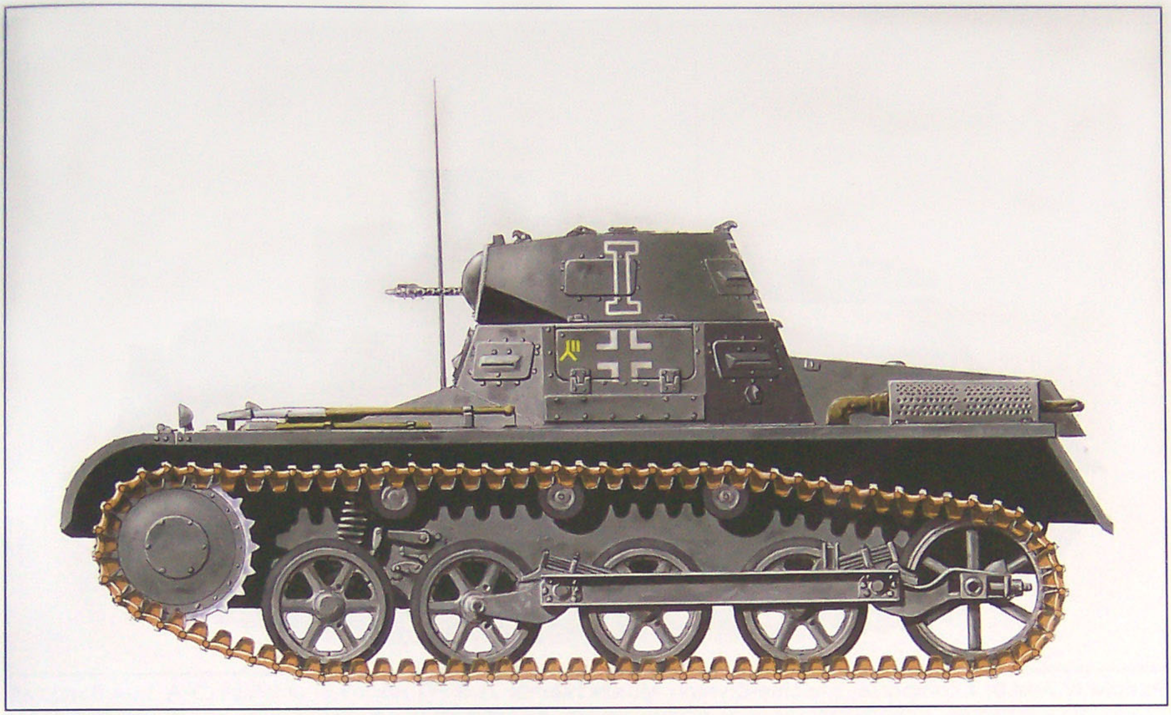
A knocked-out British Matilda tank during Operation 'Crusader' in November 1941. Across an area of desert of about 50 square-miles from the Egyptian frontier in the east, to the road south out of Tobruk in the west, tanks fought tanks. Soon the battlefield was littered with the dead and burnt out hulks of armored vehicles.



Another view of a British Matilda tank knocked out by a direct hit from an anti-tank gun. Out in the desert the anti-tank battalion, or Panzerjäger Abteilung (motorized), was very effective against British tanks and scored sizable successes during a battle.

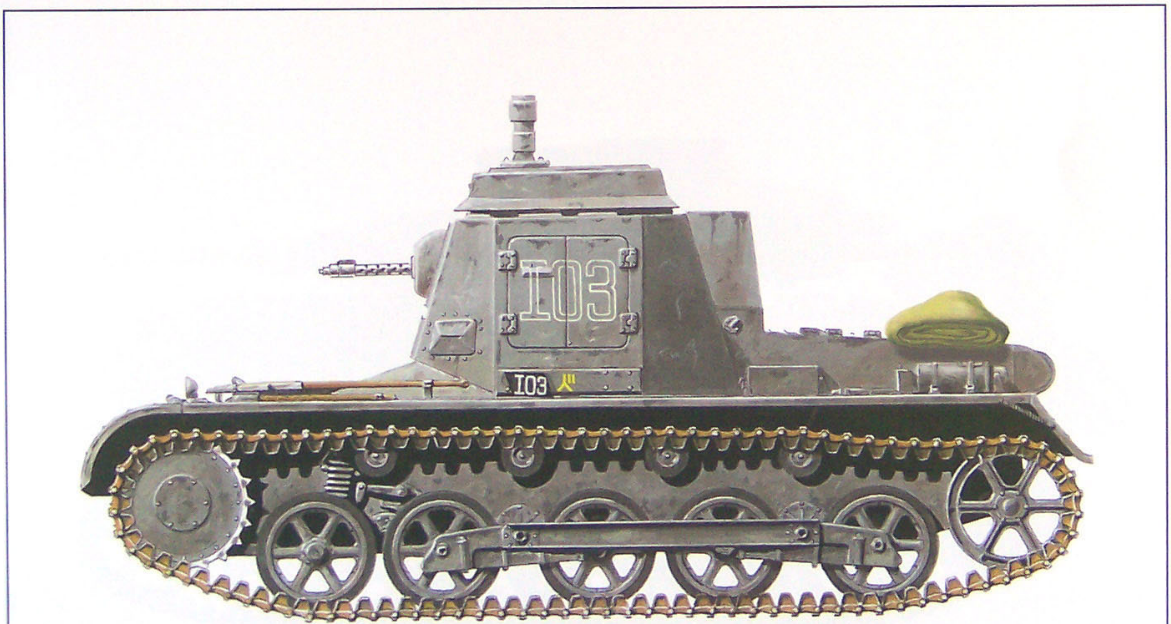


A British Mk.VI Crusader I cruiser tank has received a direct hit from German anti-tank fire whilst attempting to withdraw from its overrun positions. This was one of the most distinctive of the British tanks, but because of its rushed design, it became one of the least effective on the battlefield against tanks like the Pz.Kpfw.III and Pz.Kpfw.IV.



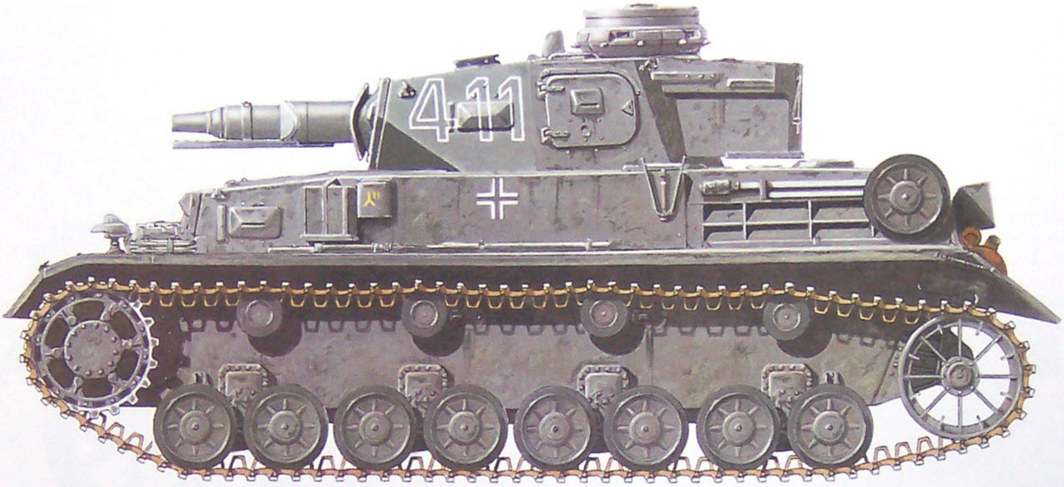
Pz.Kpfw.I Ausf.A, Pz.Rgt.5, 5.leichte-Division, February/March 1941

This dark gray Panzerkampfwagen I has the familiar Panzer-Regiment.5 camouflage colour for this early period of the campaign in North Africa. On the side of the turret it has the Roman numeral `I' painted in a white outline. A black and white national cross appears on the hull side, followed by the divisional insignia of 3.Panzer-Division painted in yellow.



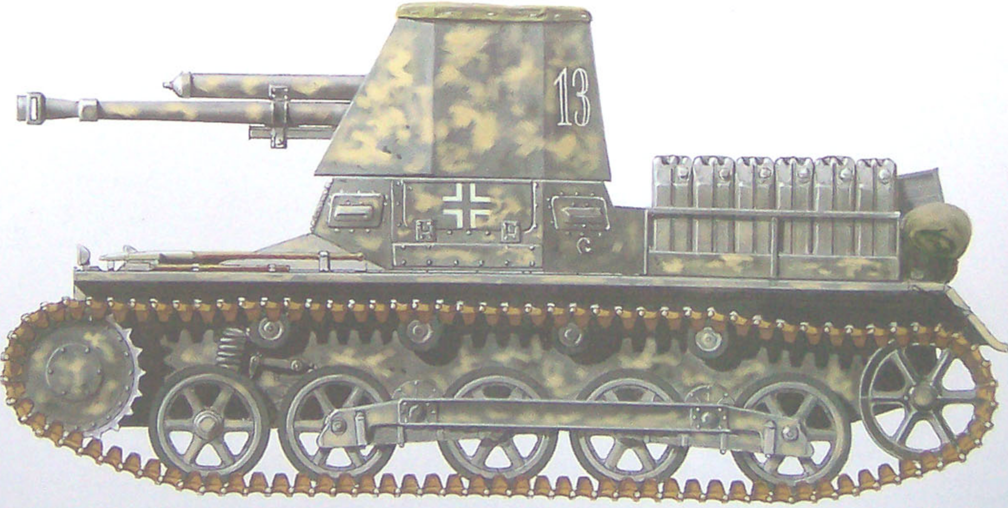
Pz.Bef.Wg.I Ausf.B, 5.leichte-Division, March 1941

This Panzerbefehlswagen I Ausf.B is part of the divisional headquarters. This vehicle is painted in overall dark gray. It has a tactical number 'I03' painted in a white outline on the fixed turret hatch. At the base of the turret the tactical number is repeated again with the divisional insignia of 3.Panzer-Division painted in yellow next to it.



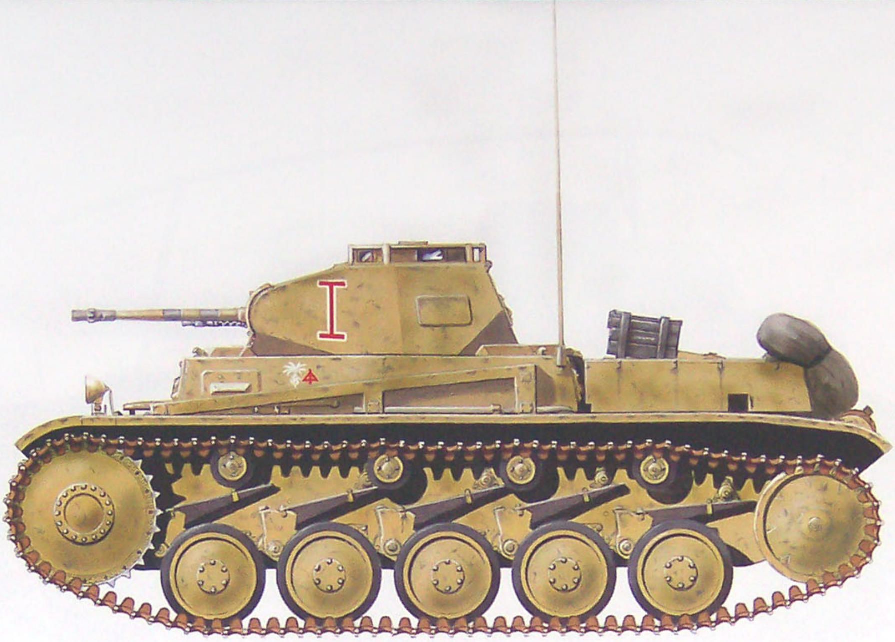
Pz.Kpfw.IV Ausf.D, 4.Kompanie, 5.leichte-Division, March 1941

Here is another vehicle during the first days of the African campaign. It is painted in typical standard dark gray with a black and white national cross on the hull side. Painted next to it in dark yellow is the divisional insignia of 3.Panzer-Division. On the side of the turret painted in a white outline is the tactical number '411'. The tactical number can also be seen painted on the rear of the turret stowage bin.



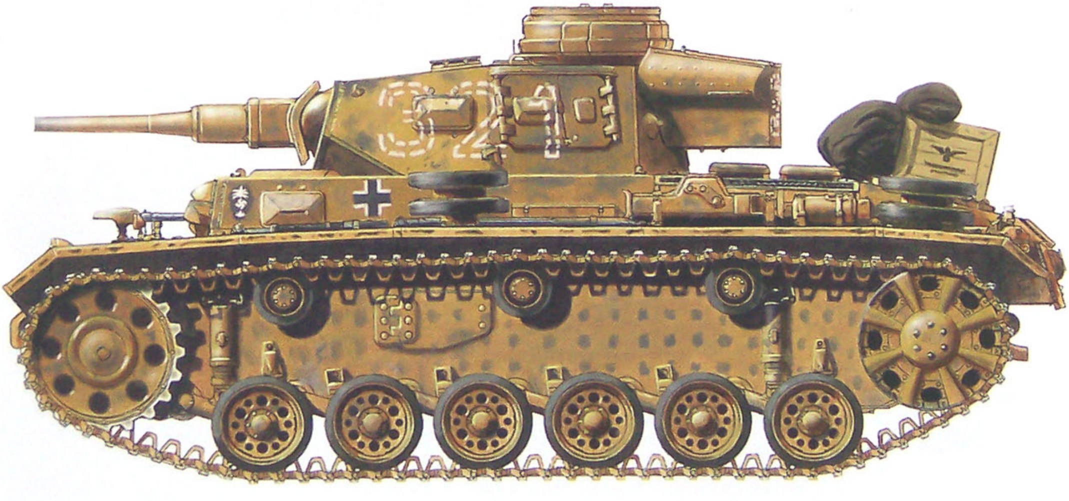
Panzerjäger I, Pz.Jg.Abt.605, 5.leichte-Division, April 1941

This Panzerjäger I has a camouflage scheme of original dark gray with a field applied camouflage pattern of dark sand spots. The tactical number '13' is painted on the rear of the fixed turret in a thin white outline. A black and white national cross appears on the hull side.



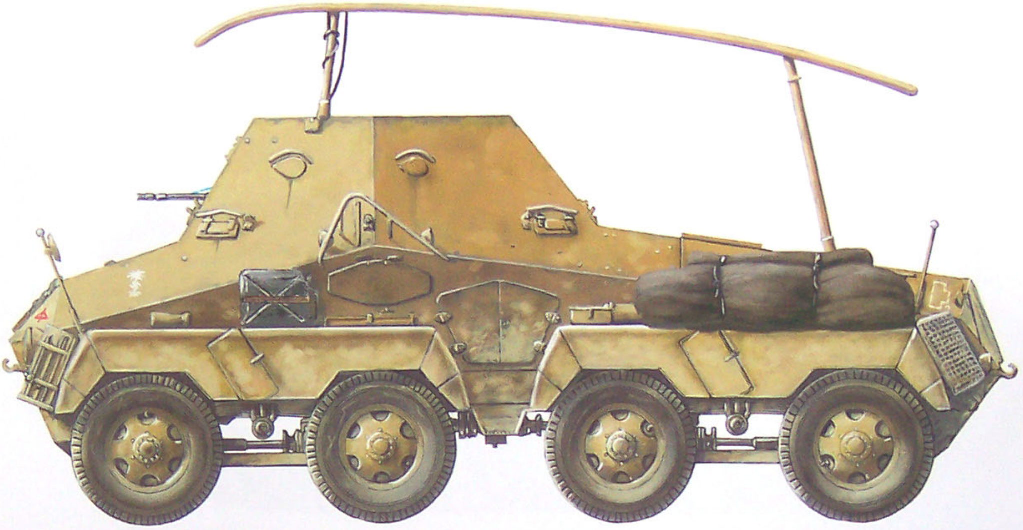
Pz.Kpfw.II Ausf. A-C, Pz.Rgt.8, 15.Panzer-Division, spring 1941

This vehicle has a typical dark yellow finish, but with sand spots. It is the commander's tank of I.Abteilung, with 'I' painted in red with a white outline. Painted on the hull side in red is the 15.Panzer-Division's insignia, and next to it painted in white is the old style DAK insignia of a palm tree with a swastika.



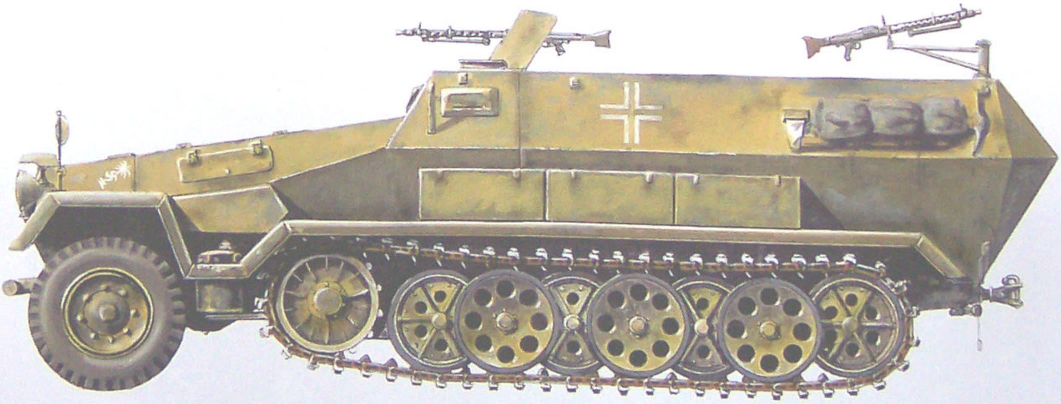
Pz.Kpfw.III Ausf.G, 3.Kompanie, 5.leichte-Division, spring/summer 1941

This Pz.Kpfw.III Ausf.G is painted in overall DAK dark yellow. Markings include the standard black and white national cross on each side and on the left side of the rear plate. Painted next to the national cross is the early type DAK insignia of a white palm tree with a white swastika on a black background. The tactical number '321' is painted in a white outline on the side of the turret.



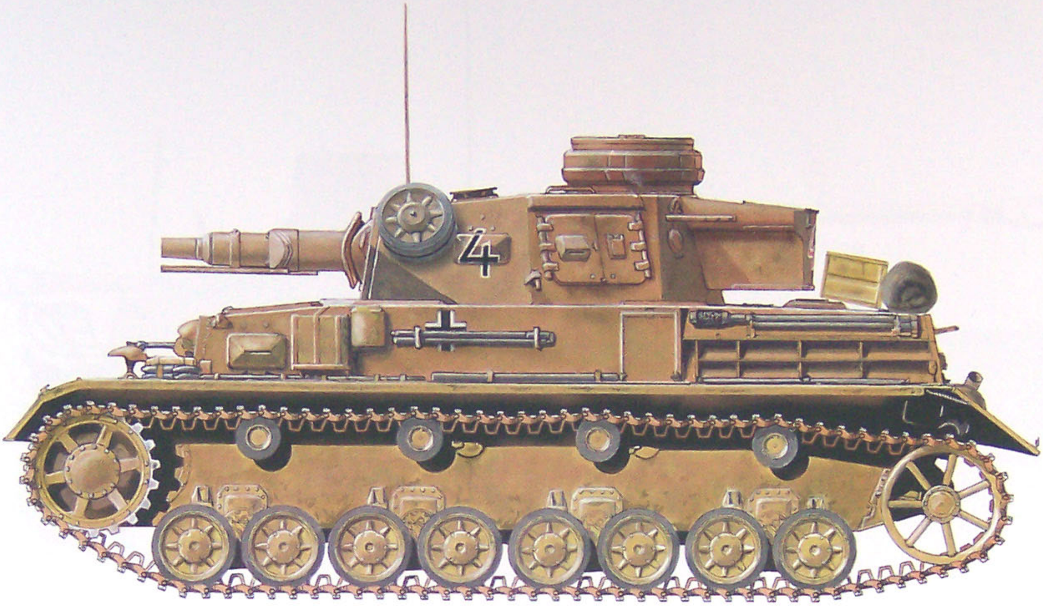
Sd.Kfz.263, Div.Nachr.Abt, 21.Panzer-Division, end 1941

This Panzerfunkwagen (Sd.Kfz.263) 8-rad was usually issued to the Nachrichten Abteilung of motorized infantry and panzer divisions as well as korps and armee headquarters. This particular Sd.Kfz.263 has received a new camouflage scheme of dark yellow. The vehicle has no other markings except the DAK insignia of a white palm with a swastika and the divisional insignia painted in red on the nose of the vehicle.



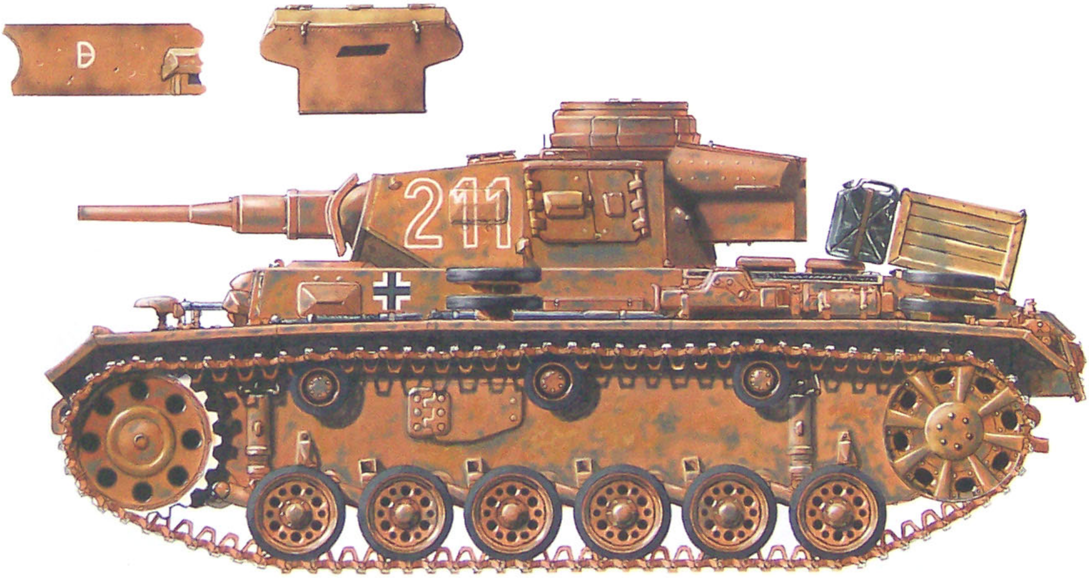
Sd.Kfz.251 Ausf.B, 15.Panzer-Division, January/February 1942

This Sd.Kfz.251 half-track is finished in overall dark yellow. However, because the vehicle has been crudely painted by hand parts of the original dark gray can still be seen in areas. On the side of the hull the national cross is painted with a white outline. The DAK insignia is painted in white on the front side of the half-track.



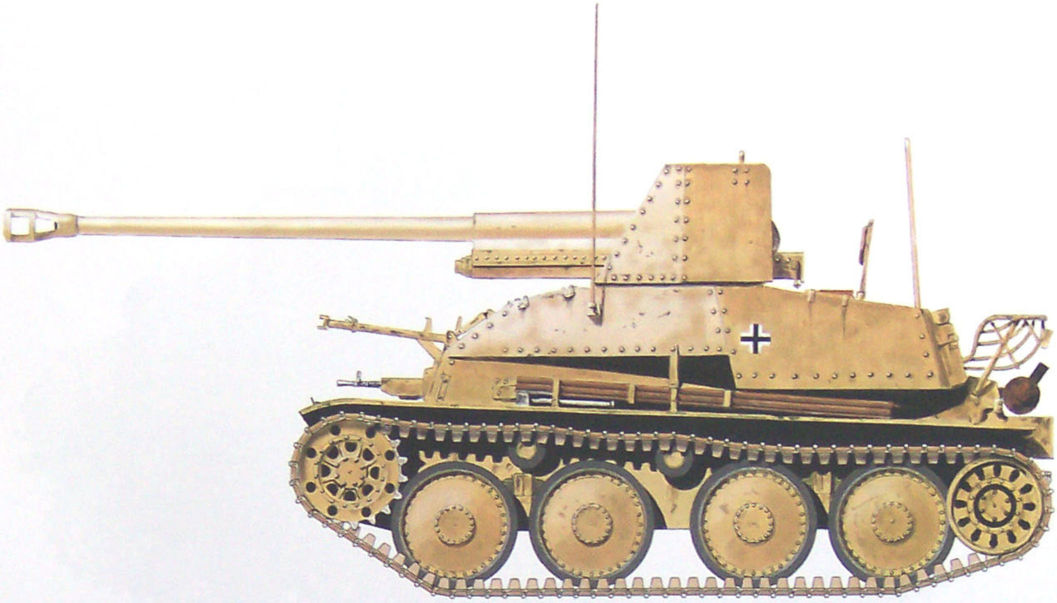
Pz.Kpfw.IV Ausf.F1, 4.Kompanie, 15.Panzer-Division, March 1942

This Pz.Kpfw.IV has been repainted in overall dark yellow. Markings are limited to the tactical number '4', which is painted in black with a white outline on the side of the turret and rear storage bin of the turret. The national cross is painted in black with a white outline on the hull side.



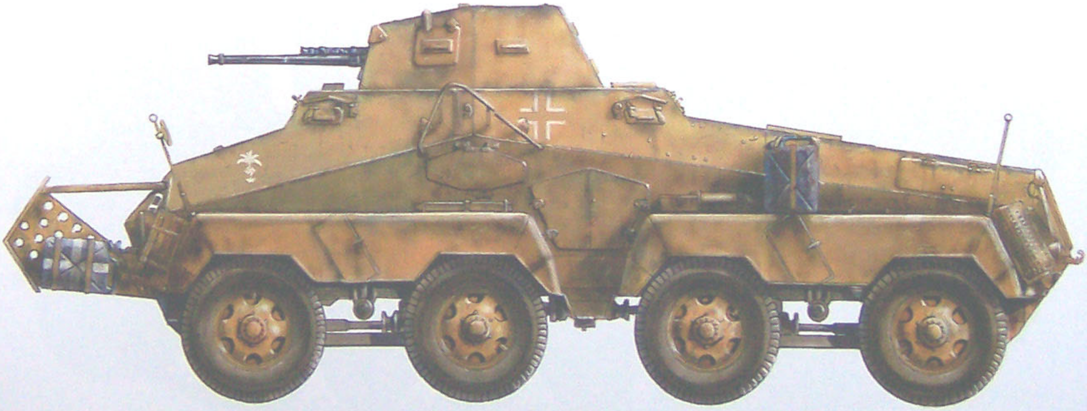
Pz.Kpfw.III Ausf.G, 2.Kompanie, 21.Panzer-Division, summer 1942

This Pz.Kpfw.III belonging to the 21.Panzer-Division is painted in overall dark yellow, with areas of the original dark gray still visible. The tactical number '211' is painted in white outline on the side of the turret. The national cross is painted in black with a white outline on the hull side. A stowage bin can clearly be seen attached to the engine deck.



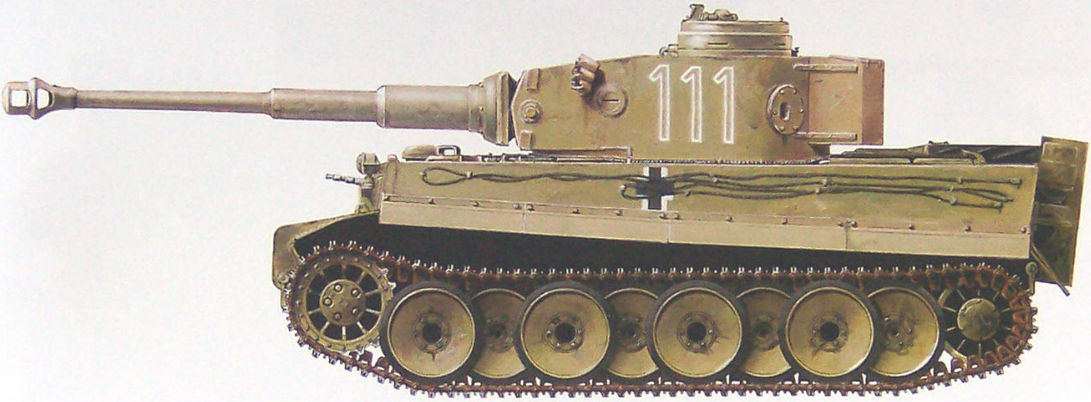
Marder III ,unknown Pz.Jg.Abt., summer 1942

This Marder III has received a camouflage coating of plain dark yellow sprayed evenly across the entire vehicle. No visible markings can be seen except a national cross on the hull side painted in black with a white outline.



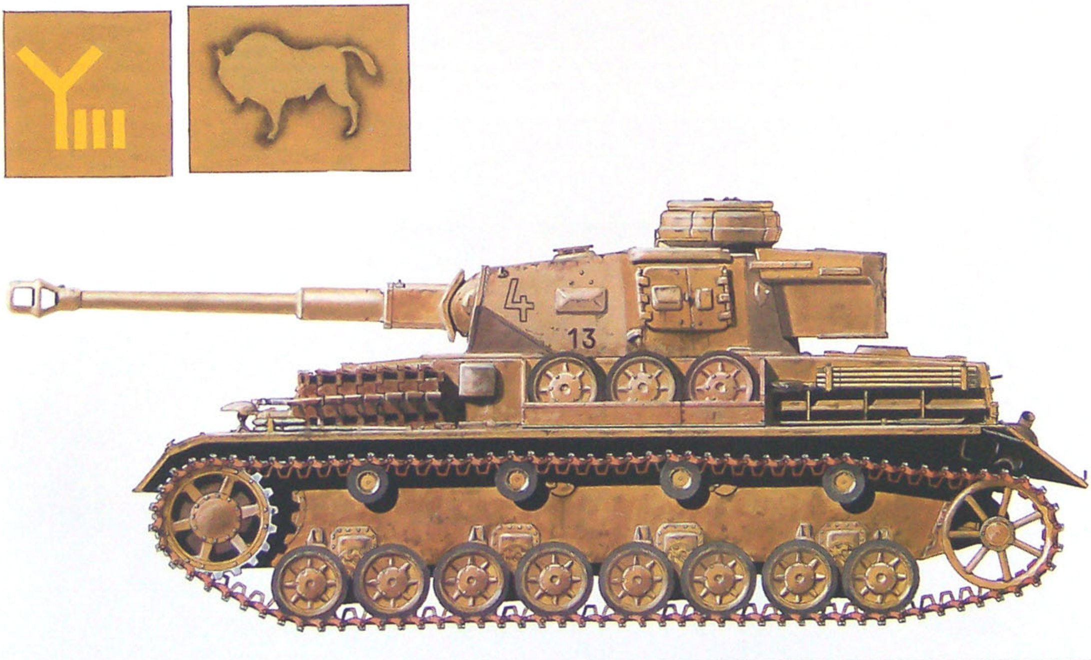
Sd.Kfz.231, unknown Pz.Aufkl.Abt., autumn 1942

This Sd.Kfz.231 is painted in overall dark yellow. Markings are limited to the DAK palm tree insignia and the national cross painted with a white outline on the side of the vehicle.



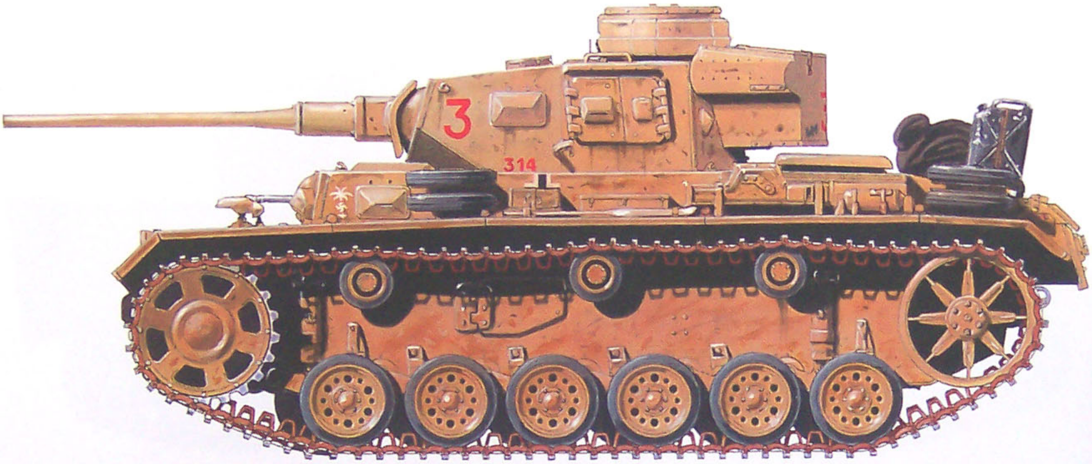
Pz.Kpfw.VI Tiger I Ausf.E, 1.Kompanie, 1./sPz.Abt.501, Tunisia, December 1942

This early production Tiger I has a camouflage scheme of large olive green patches over the dark yellow base. A three digit tactical number '111' is painted in white on the side of the turret.



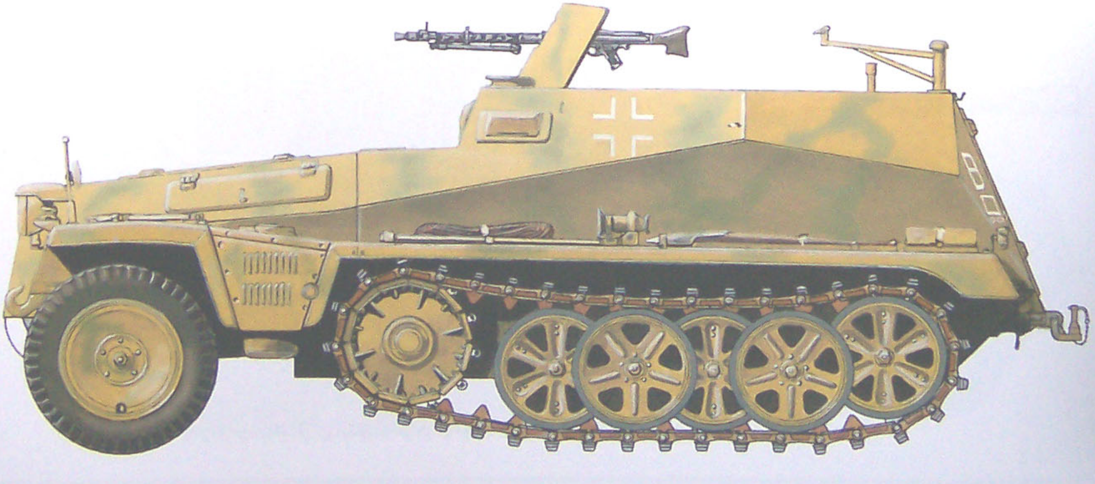
Pz.Kpfw.IV Ausf.G, 4.Kompanie, 10.Panzer-Division, Tunisia, January 1943

This early model Pz.Kpfw.IV Ausf.G has a camouflage scheme of overall dark yellow. There are no visible markings except the company number '4' painted in a black outline on the side of the turret and the platoon and vehicle number '13' painted in black.



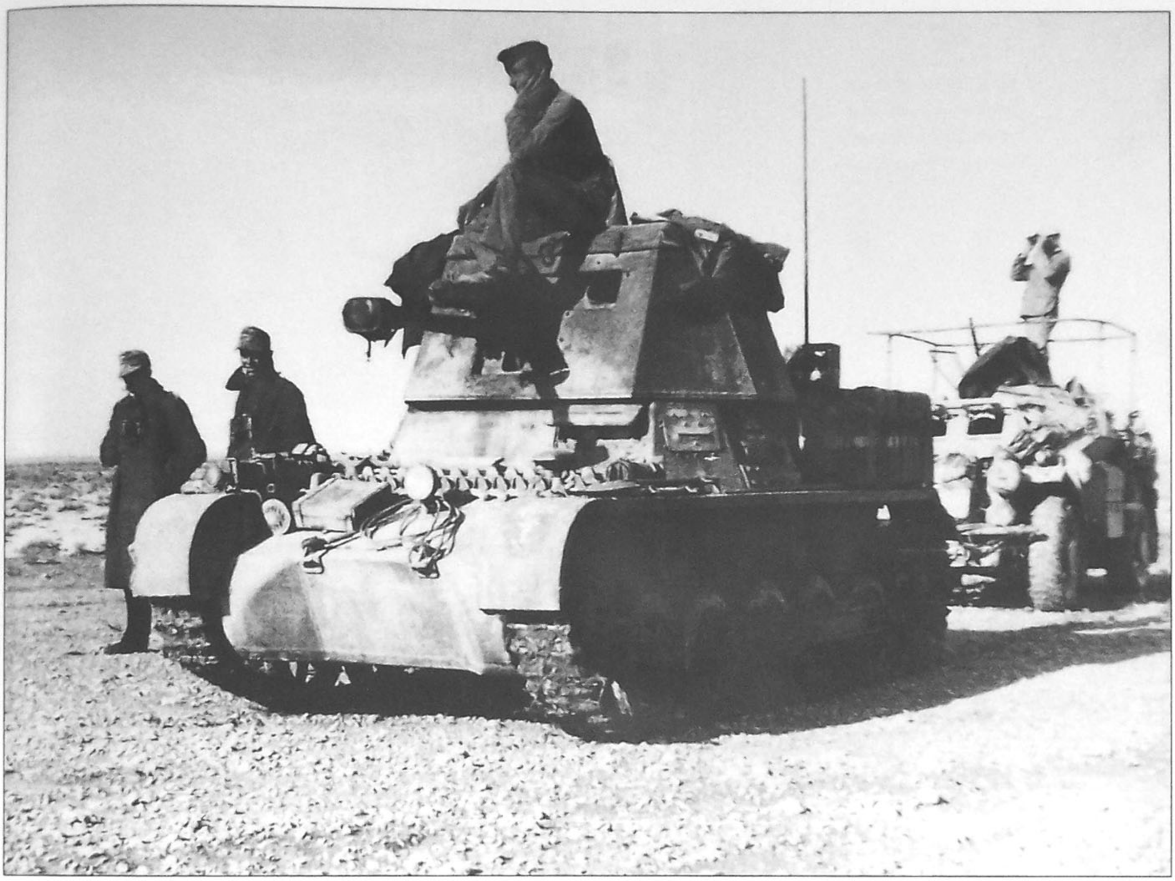
Pz.Kpfw.III Ausf.J, 3.Kompanie, 15.Panzer-Division, Tunisia, 1943

This Pz.Kpfw.III Ausf.G is painted in overall dark yellow. It carries the tactical number '3' painted in red on the side of the turret. Also painted in red on the side of the turret is the number '314'.

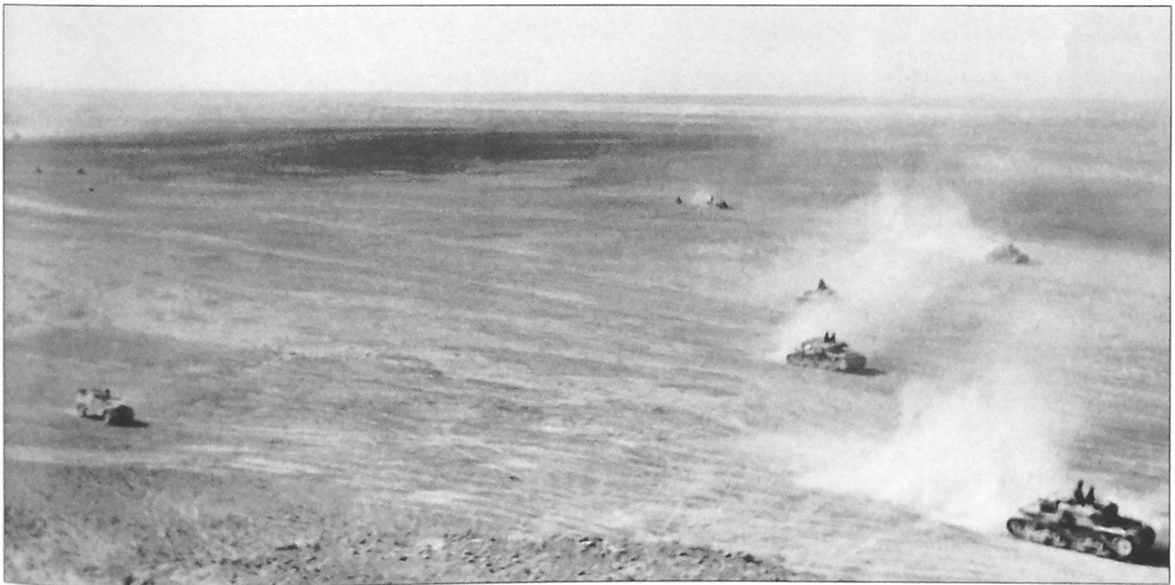


Sd.Kfz.250/1, Pz.Gr.Rgt.104, 21.Panzer-Division, Tunisia, 1943

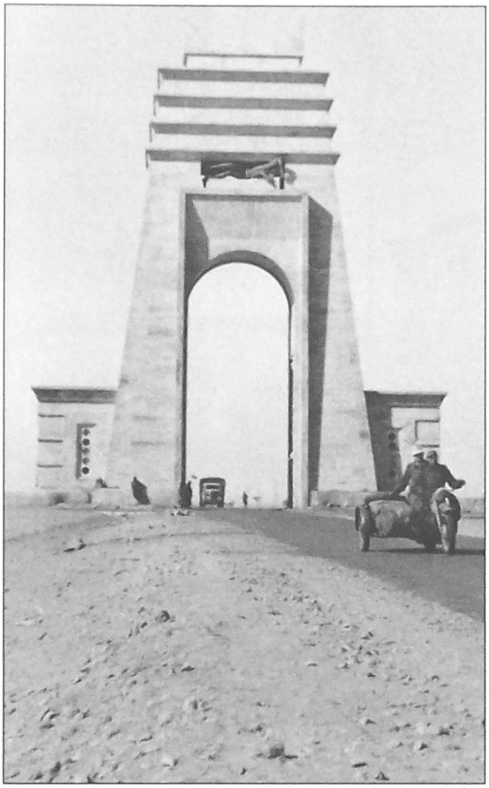
This Sd.Kfz.250 is painted in overall dark sand and has a camouflage scheme of thin olive green wavy lines.

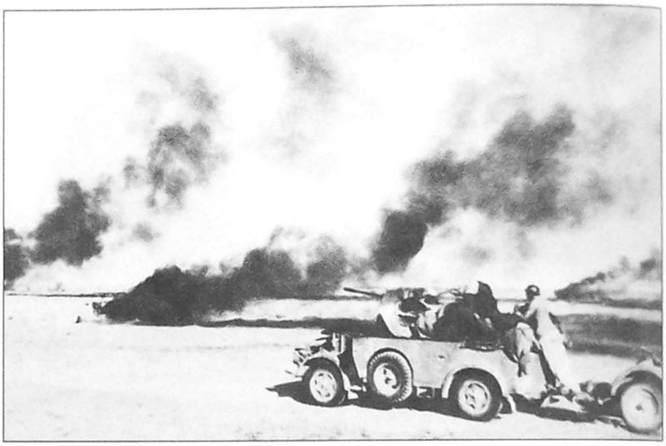


A Panzerjäger I attached to the 21.Panzer-Division is leading a column of vehicles out into the desert. This armored vehicle built on the chassis of a Pz.Kpfw.I is painted in overall dark gray. The vehicle immediately behind it is an Sd.Kfz.223 being used primarily as an armored communication vehicle.



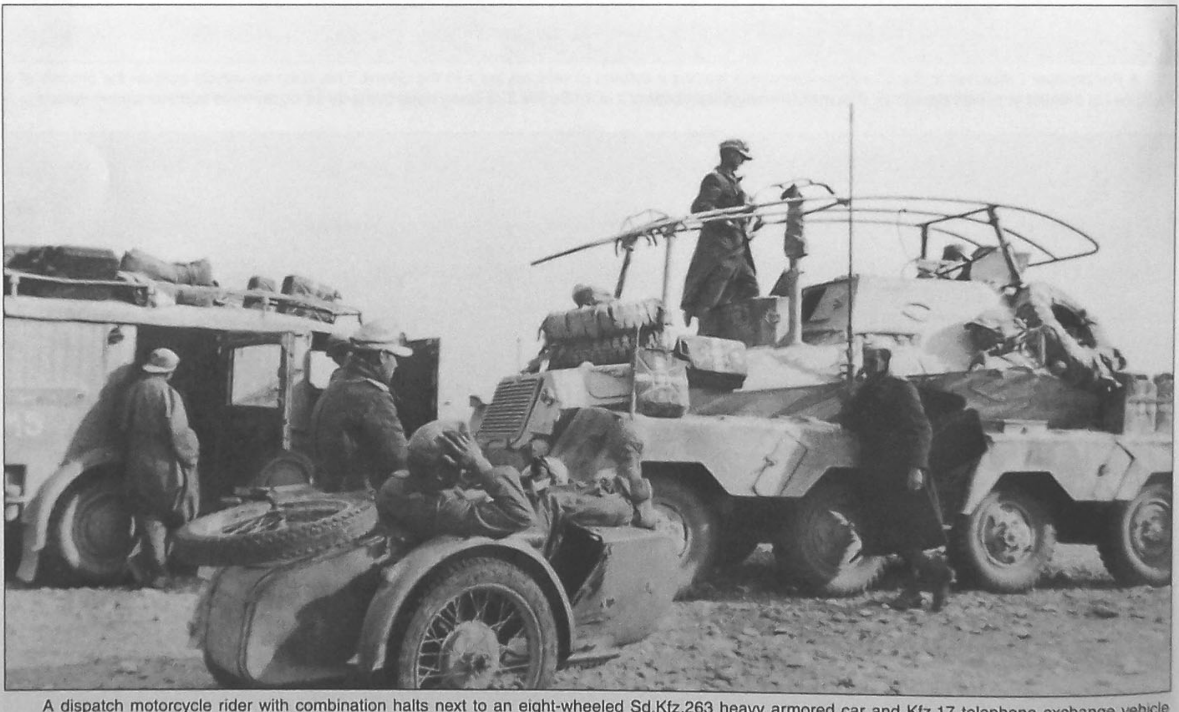
Several Italian Semovente da 75/18 assault guns advance across the open desert. This vehicle mounted a 75mm gun on a modified M13-40 or M14-41 hull.



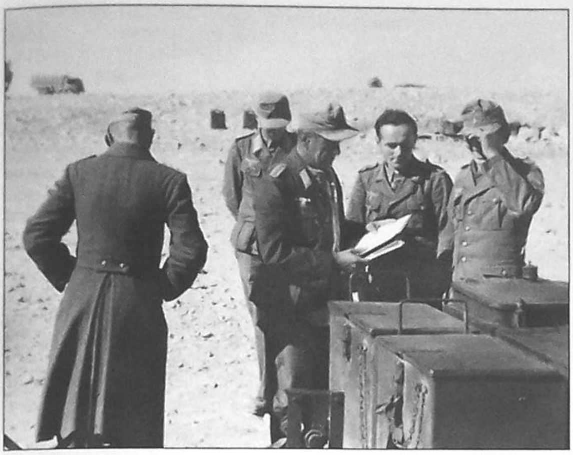


In the thick of battle a Kfz.81 light FlaK vehicle equipped with a 2cm FlaK 38 dual-purpose gun, is being used here in an anti-tank role. The vehicle has halted and one of the FlaK crewmembers can be seen standing on the ammunition trailer. He is obviously feeding the ammunition to the gunner.

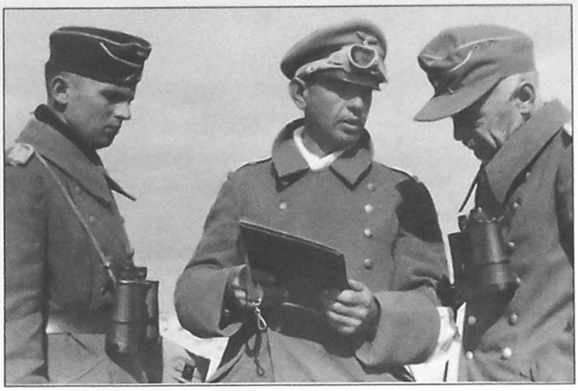
In this photograph a motorcycle combination and Opel Blitz truck pass under a triumphal arch built by the Italians on the Via Balbia. This photograph was taken in late December 1941 when the DAK withdrew its forces nearly 300 miles across the desert without great loss, and were still able to inflict great injury on its enemy.



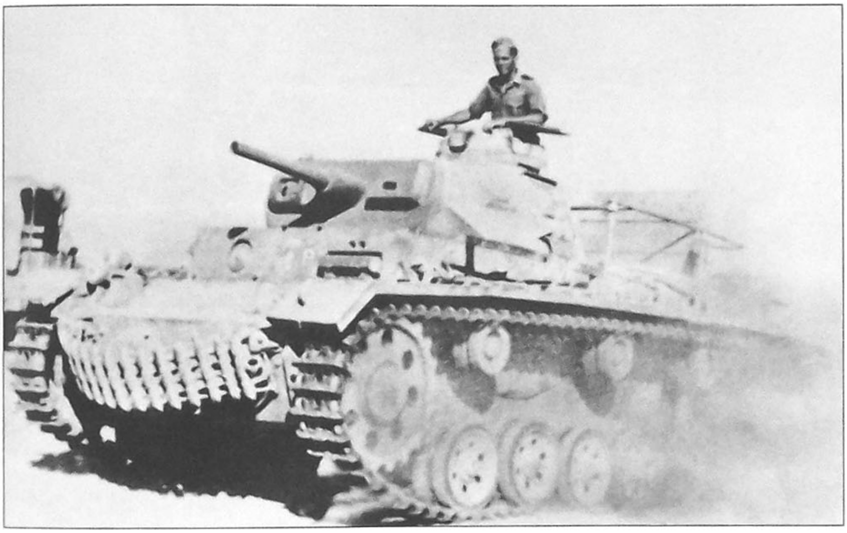
A dispatch motorcycle rider with combination halts next to an eight-wheeled Sd.Kfz.263 heavy armored car and Kfz.17 telephone exchange vehicle somewhere in the Western Desert in early 1942. As with all the vehicles issued to the DAK motorcycles too were also given a camouflage scheme of dark yellow and displaying the DAK Afrika palm symbol.



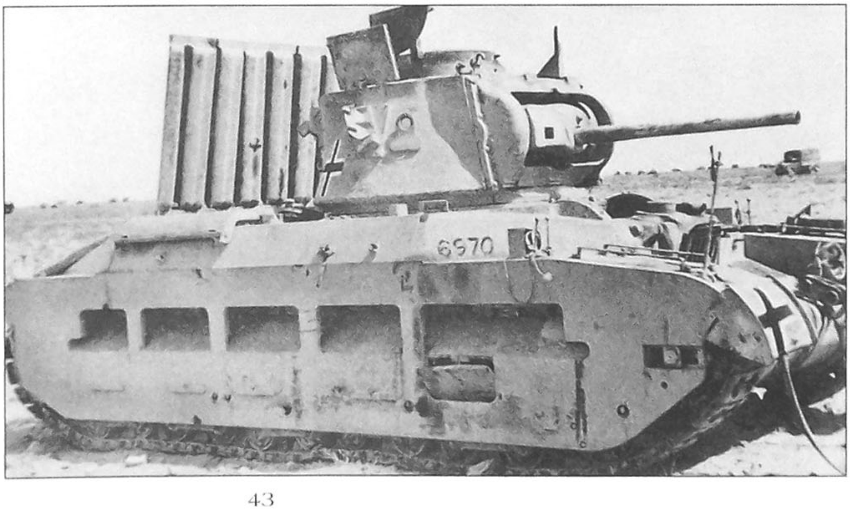
A DAK officer reads some notes, resting on his leather folder. All the officers, except one, are wearing the DAK peaked field cap and are dressed in typical clothing worn by DAK officers in 1942.



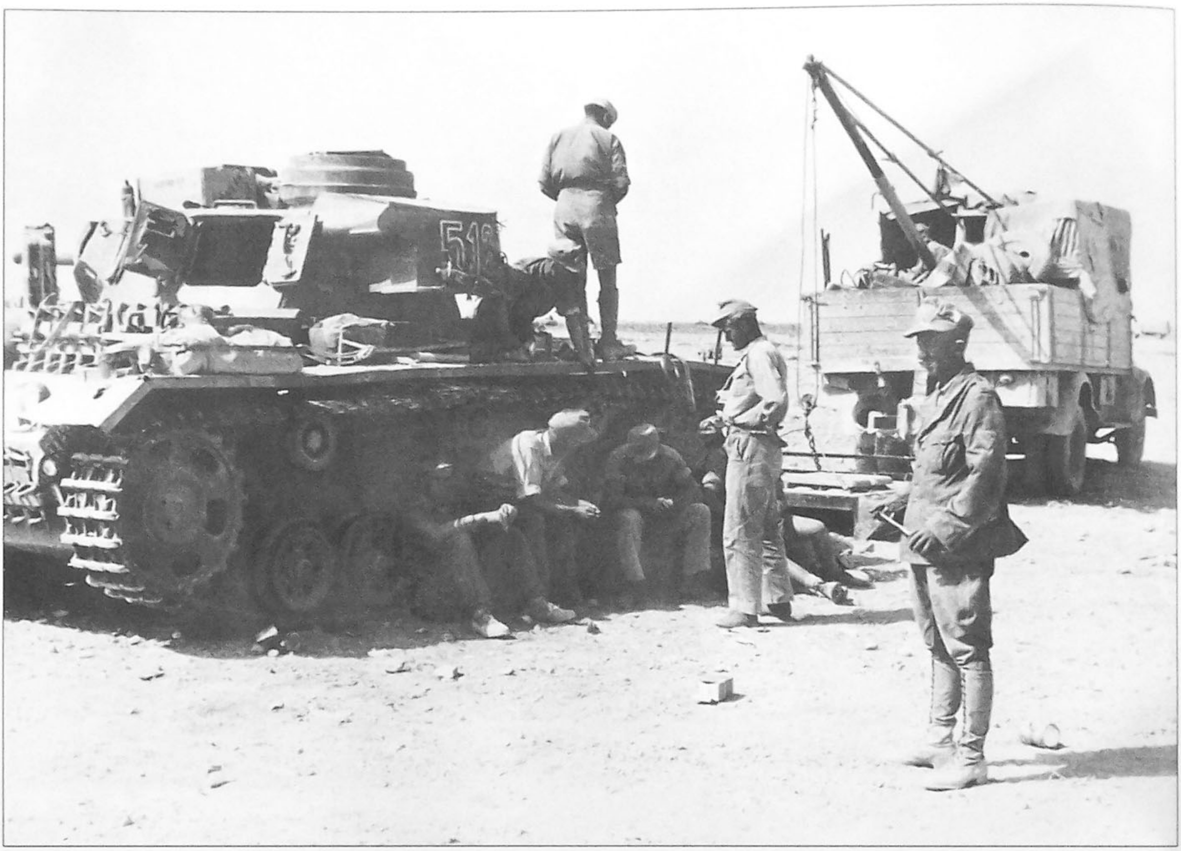
Three officers confer regarding the next strategic move on the battlefield. They all are wearing greatcoats, which appear to be the tropical version. They were made of darkish brown woollen cloth, and unlike the continental version, it is double-breasted, with two rows of six painted buttons, and has a contrasting dark green face collar. The officer on the left is a tank commander and wearing the black panzer field cap.



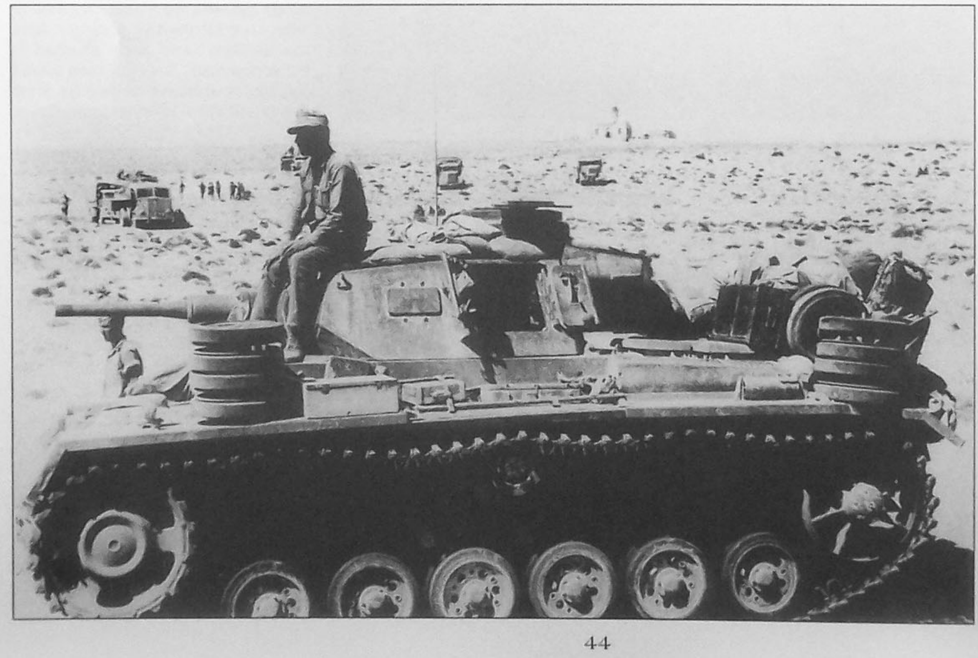
A Pz.Bef.Wg.III Ausf. H driving through captured Allied positions in early 1942. This Panzerbefehlswagen III is more than likely part of a divisional headquarters. The tank is armed with a dummy 5cm gun instead of the original 3.7cm gun and the mantlet appears to have been modified by a censor. Note the standard frame aerial attached to the engine deck. The crew have placed spare track sections over the front of the hull for additional armored protection.



A captured British Matilda tank has been pressed into action by an unidentified DAK panzer regiment in early 1942. The vehicle retains the British dark yellow camouflage paint and the tactical number '6970' painted in red. A black and white national cross has been painted on the side of the turret and the right mudguard for ground and aerial recognition.

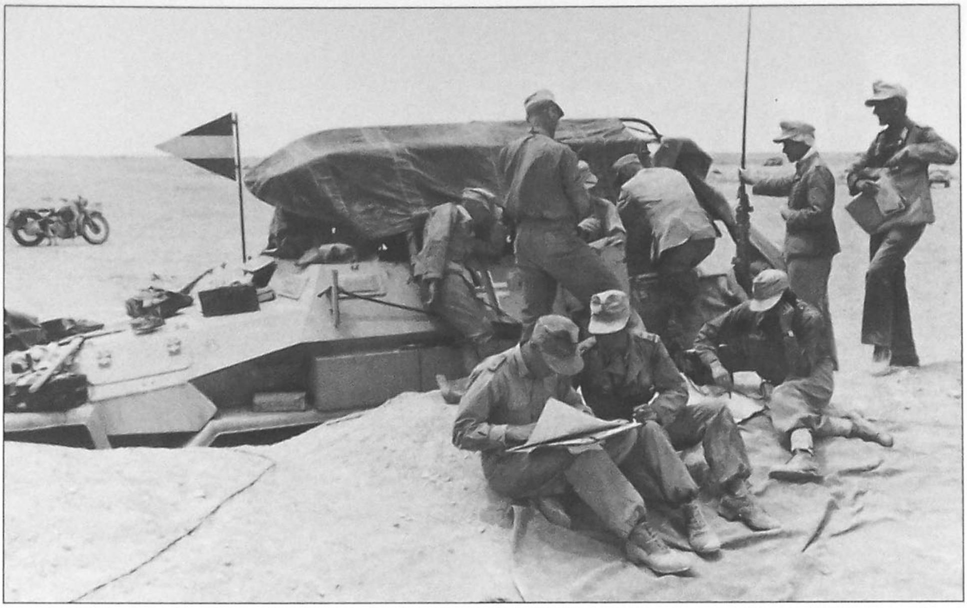


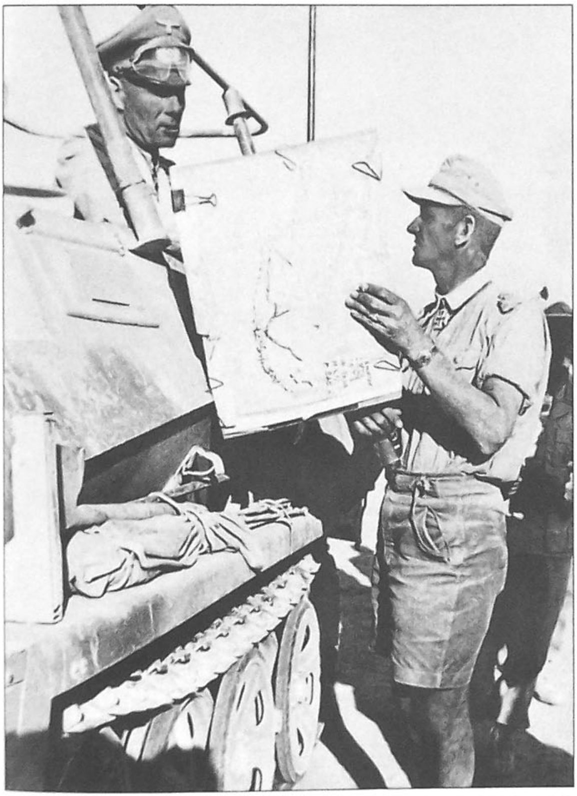
The majority of panzers in North Africa were lost in groups due to surprise fire from well-concealed batteries of enemy anti-tank guns. A DAK maintenance company, however, has salvaged this Pz.Kpfw.III Ausf.J, from complete loss. Much of the panzers armored success in the desert was owed to their well-equipped maintenance companies, which kept the vehicles in fighting condition. It appears that this particular Pz.Kpfw.III has experienced engine problems of some kind.



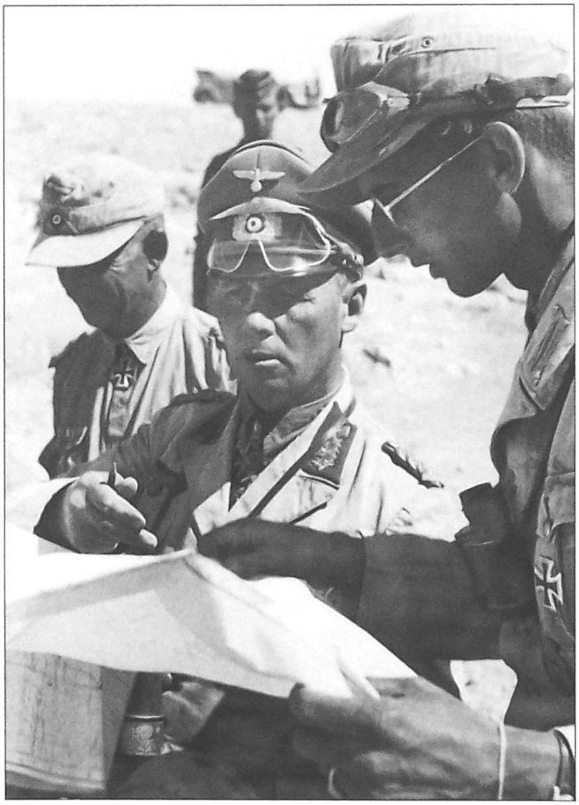
Out in the scorching midday sun a Pz.Kpfw.III Ausf.J crewmember sits on the turret of his vehicle awaiting orders to move forward. The tank carries a whole host of provisions on the engine deck including rolled canvas material to protect the vehicle and crew against the harsh desert sand. With its powerful 5cm gun, it had the advantage over all types of tanks it encountered in the desert.

Members of a signals battalion converse with the aid of maps the next strategic move out in the desert. The Sd.Kfz.251/6 Ausf.B half-track is protected by a sand dune. Note that canvas sheeting has been draped over the long-range radio antenna and protects the crew compartment from the harsh elements.

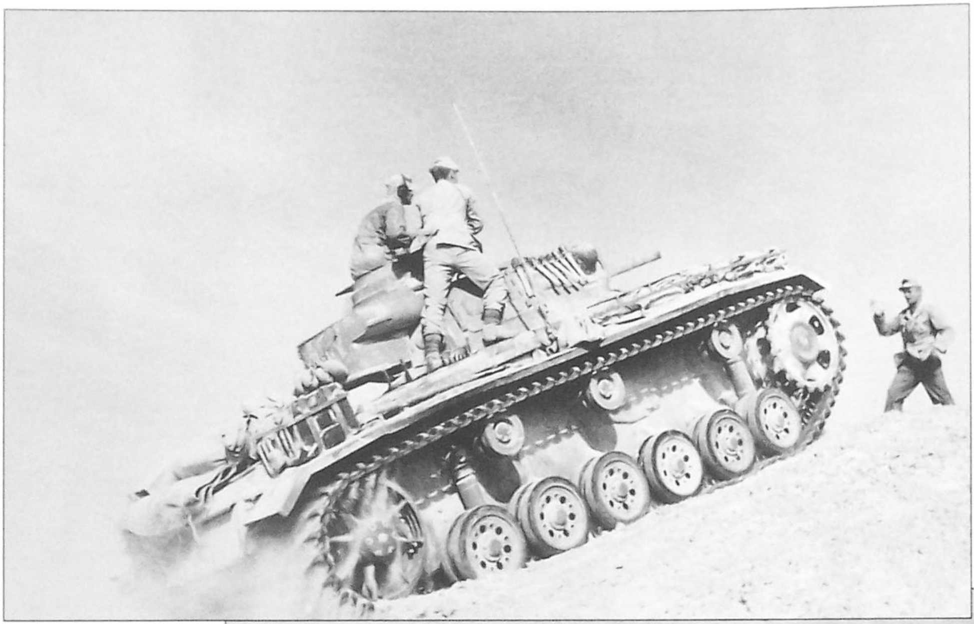




An officer confers with Rommel who is standing in his Sd.Kfz.250/3 half-track command vehicle. The Desert Fox can clearly be seen wearing over his officer's gold braided rim field cap peak, British issue goggles, which he wore continuously in the dusty desert conditions. Rommel was promoted from Generalleutenant to Generaloberst on 1 February 1942 and to Generalfeldmarschall on 22 June 1942, exactly one year after the German invasion of Russia.



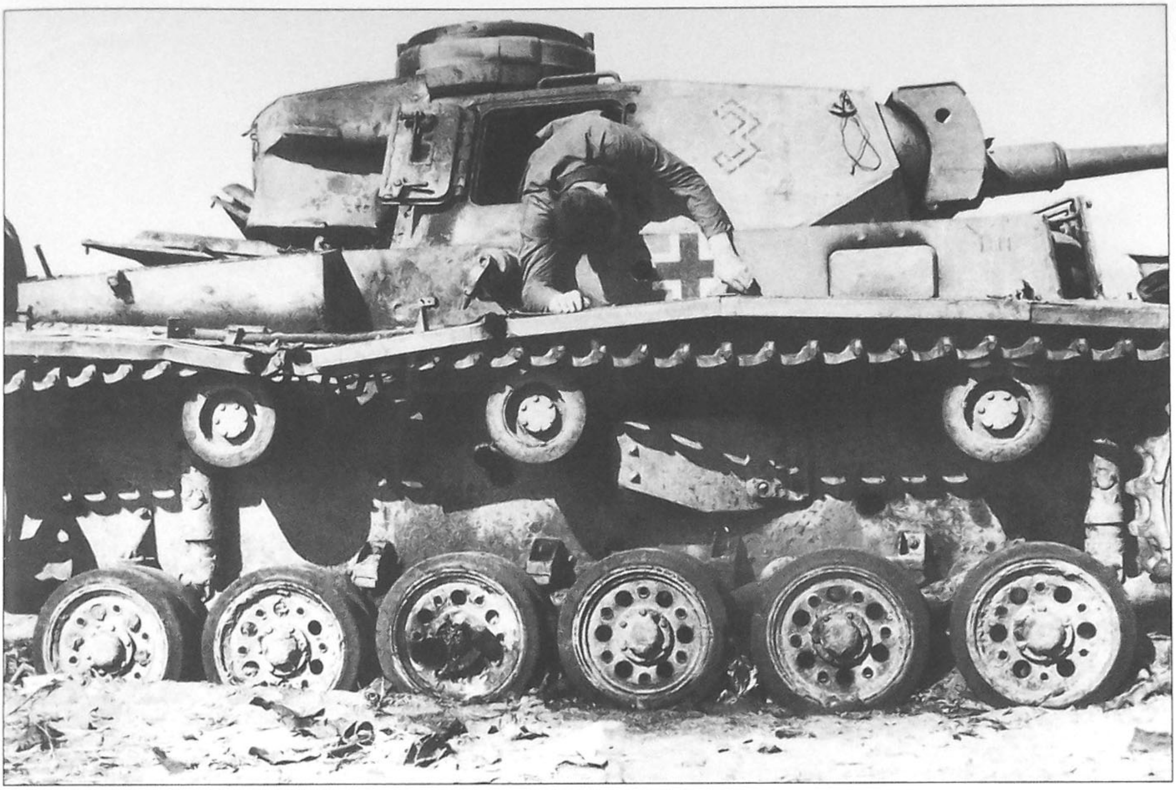
Rommel confers with officers with the aid of a map the next strategic move in the desert. Rommel was not an easy man to serve. Like so many German commanders, he could only command in his own way. But the energy he generated on the battlefield printed an indelible image on the mind of every soldier in his command.



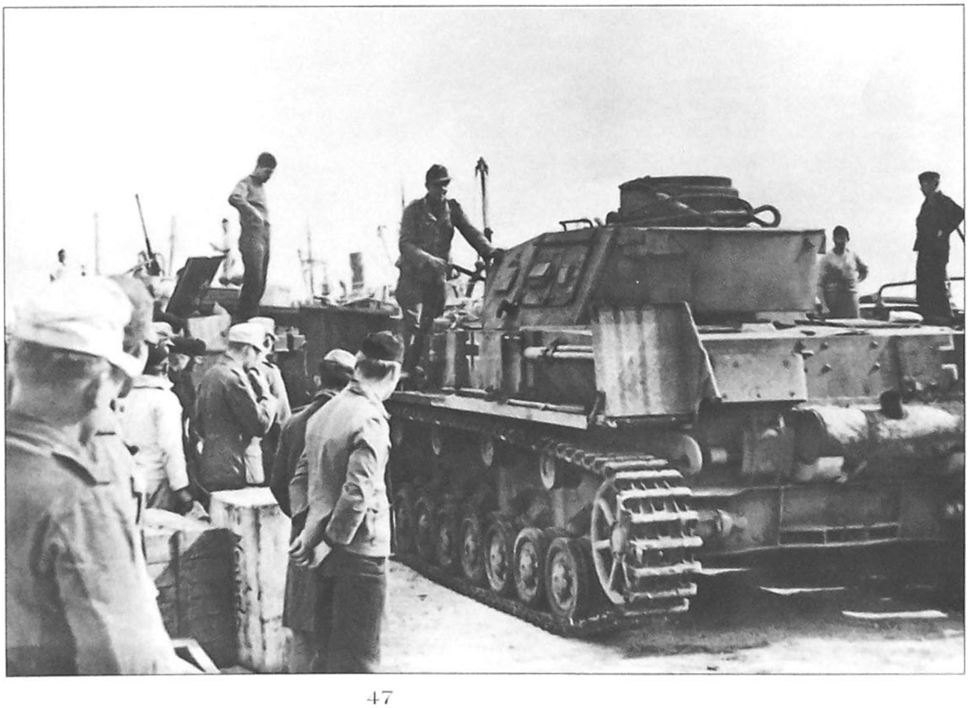
Climbing a sand dune this Pz.Kpfw.III Ausf. J uses its powerful engine to overcome the high gradient. Several stick grenades can be seen mounted on the side of the turret. Water bottles are attached to the rear turret. The crew have stowed a number of items over the engine deck, including a box full of supplies and rolled-up canvas sheeting which, when pulled over the top of the tank and tied down, formed a kind of canopy and broke up the outlines of the tank.

Horch cross-country cars, light armored vehicles and a motorcyclist move across the desert churning up dusts of sand particles in their wake. This group of vehicles is more than likely attached to a reconnaissance unit. All of the vehicles including the motorcycle have more than likely received a camouflage scheme of dark yellow. No tactical markings or divisional signs are evident, although they will all be carrying the DAK Afrika palm symbols that were either hand painted or stenciled on the vehicles.

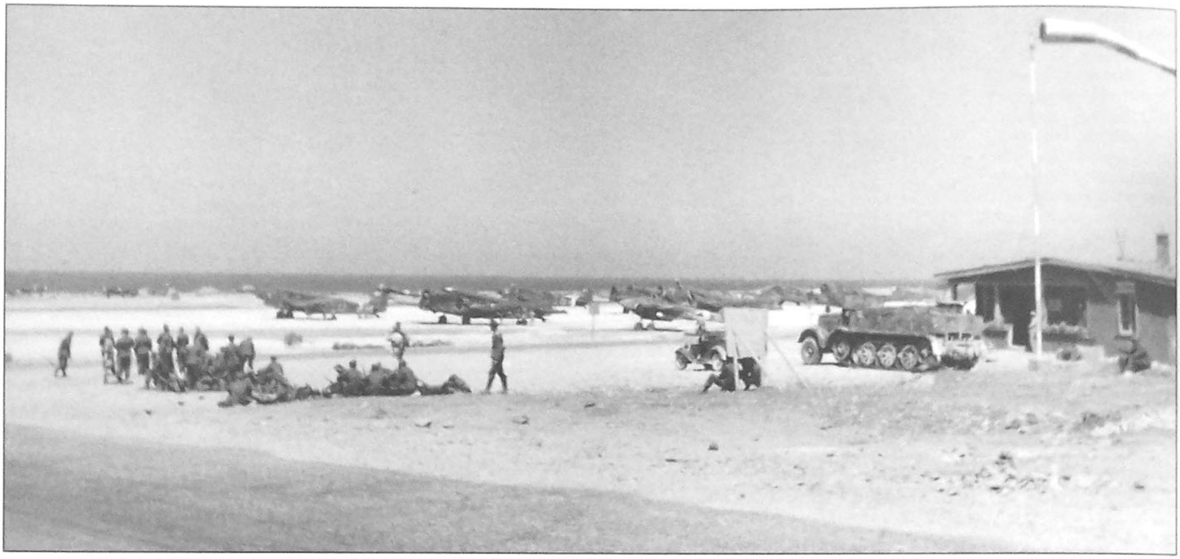
Officers from 21.Panzer-Division survey the terrain ahead during an armored advance. On 1 October 1941, 5.leichte-Division was reorganized, strengthened and retitled 21.Panzer-Division. It continued to fight with distinction throughout the remainder of the campaign in North Africa.



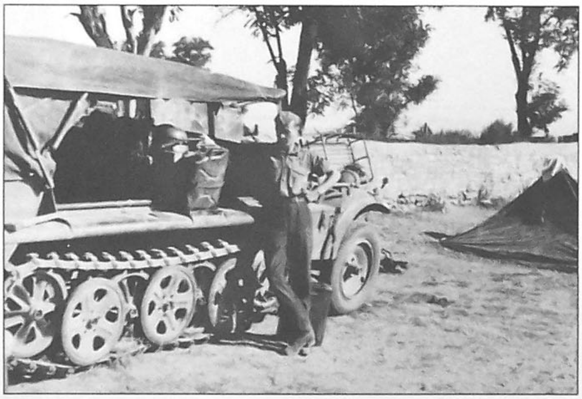
The stark reality of tank war in the desert. Here a Pz.Kpfw.III Ausf.J crew member lays dead, half sprawled from the side turret hatch he tried to feverishly escape. It is more than likely that Allied tanks attacked this Pz.Kpfw.III and the crew member was caught in the hail of bullets as he tried to make his exit. Apart from the evidence of fire damage, traces of dark yellow camouflage paint can still be identified. The tank carries the tactical number '3' painted in a red outline on the side of the turret.



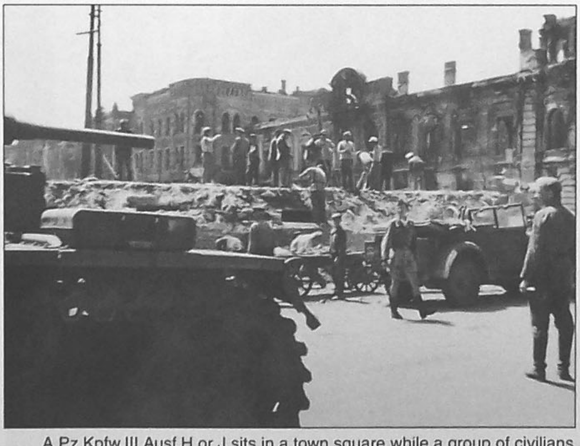
An unidentified Pz.Kpfw.IV Ausf.F1 has just disembarked from one of the many hundreds of transport ships that daily crossed the often-hazardous waters of the Mediterranean. The main ports of Tripoli, Benghazi and Tobruk were used by the DAK to unload its armor and bolster depleted panzer regiments in North Africa



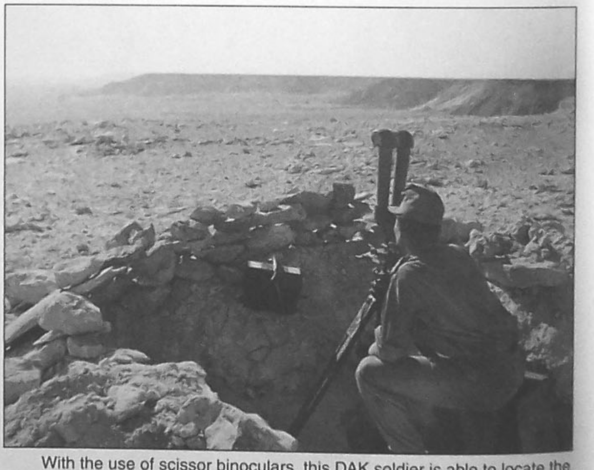
On the coast, aircraft are bringing more supplies into North Africa. Parked at the side of the airstrip is an Sd.Kfz.8 halftrack. Throughout the African campaign, airfreighting was used to significantly reduce risky transportation by sea. Not only did it prevent thousands of tonnes of supplies from being sent to the bottom of the sea by enemy shipping, but it also reduced the demand for road transport from ports like Tripoli, Benghazi and Tobruk.



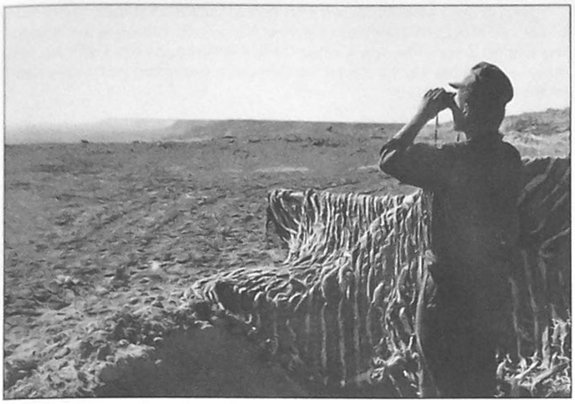
A German soldier poses beside an Sd.Kfz.10 half-track prime mover used mainly to tow the 5cm PaK 38 anti-tank gun and 2cm FlaK 30 and 38 anti-aircraft guns. To the right can be seen a tent made from the Zeltbahn shelter quarter.



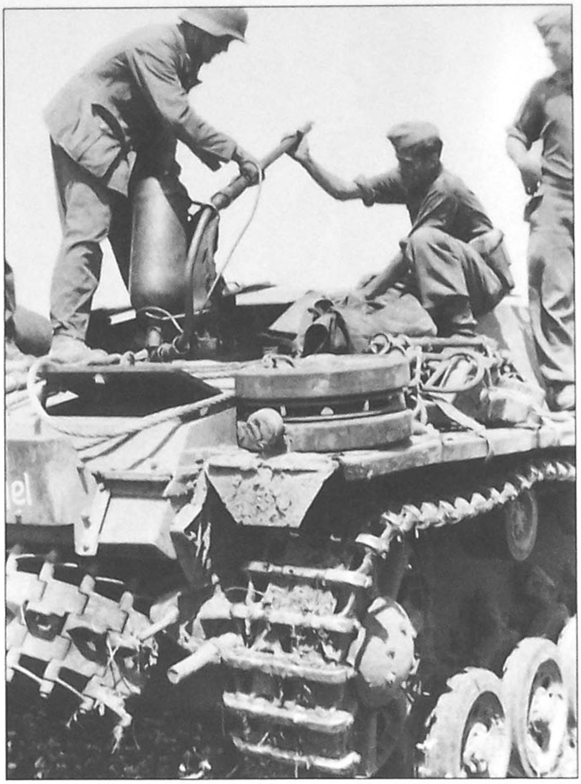
A Pz.Kpfw.III Ausf.H or J sits in a town square while a group of civilians work to repair bomb damage in the background. On the right can be seen a light personnel car with a white divisional services tactical sign just visible to the left side.



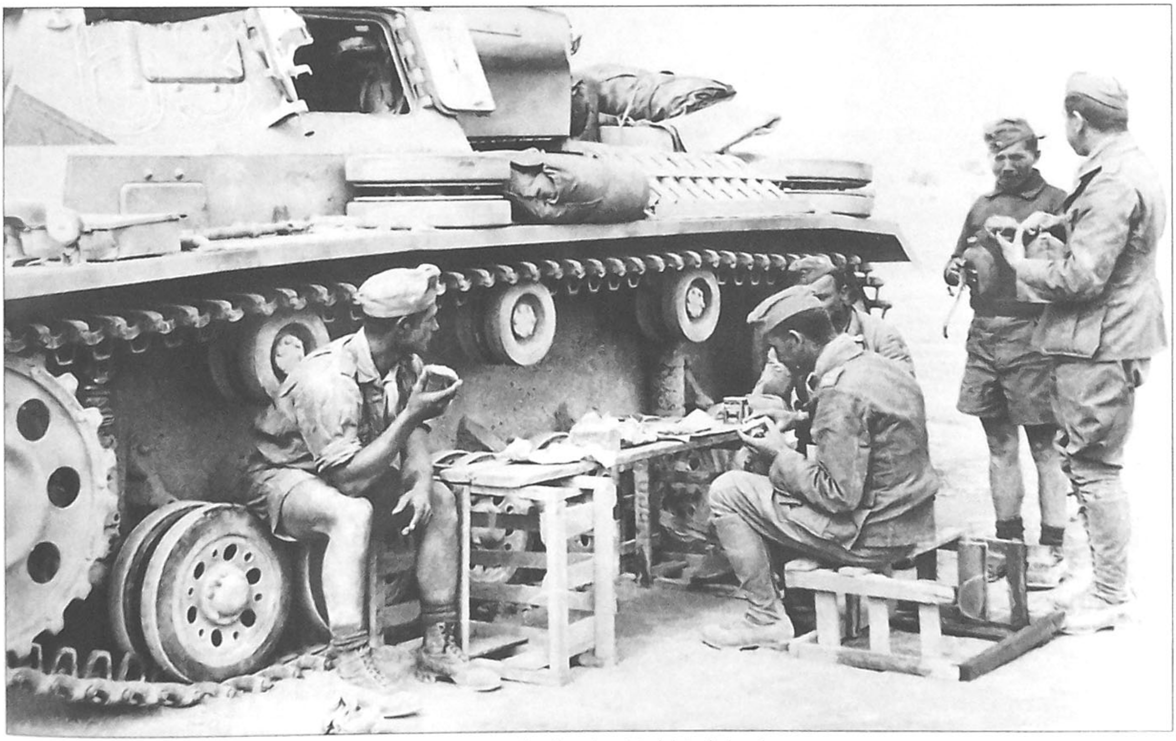
With the use of scissor binoculars, this DAK soldier is able to locate the movement of enemy positions for many miles without the prospect of being seen. Of interest note the field telephone left of the soldier.



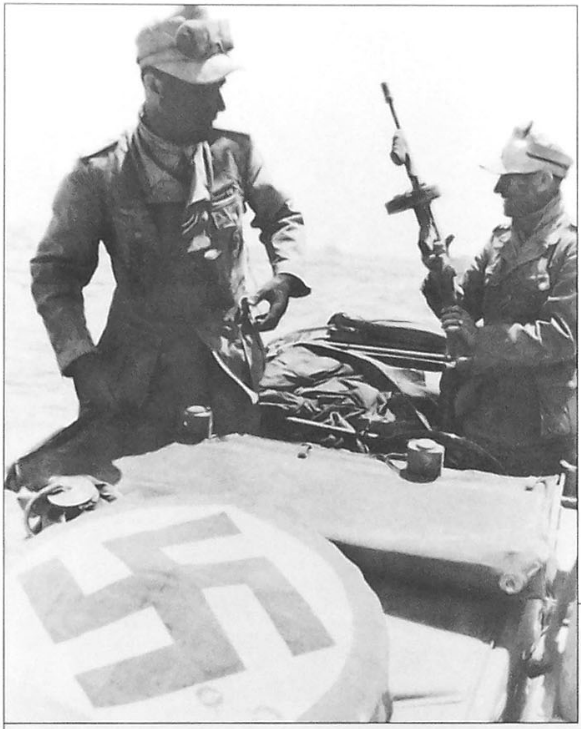
A well-camouflaged 5cm PaK 38 anti-tank gun sited on a position south of El Alamein. The gunner peers through his binoculars, trying to deduce the firing range of his target. In the desert, almost every gun was dug into a pit and covered with a net in order to conceal it from ground or aerial attack.



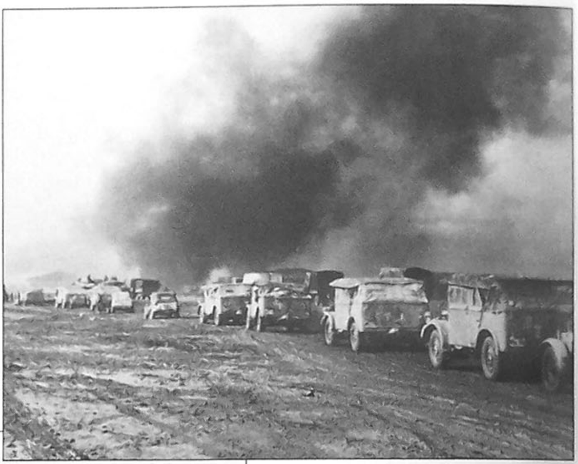
A Panzer Grenadier stowing away his flamethrower equipment on board the rear of the StuG.III Ausf.C/D assault gun. Although not widely used by the DAK the StuG.III came under ever increasing demand as the war progressed. It was not only to carry troops into action and support them while in combat, but also to carry a whole variety of supplies and equipment that were needed to sustain the troops on the battlefield.



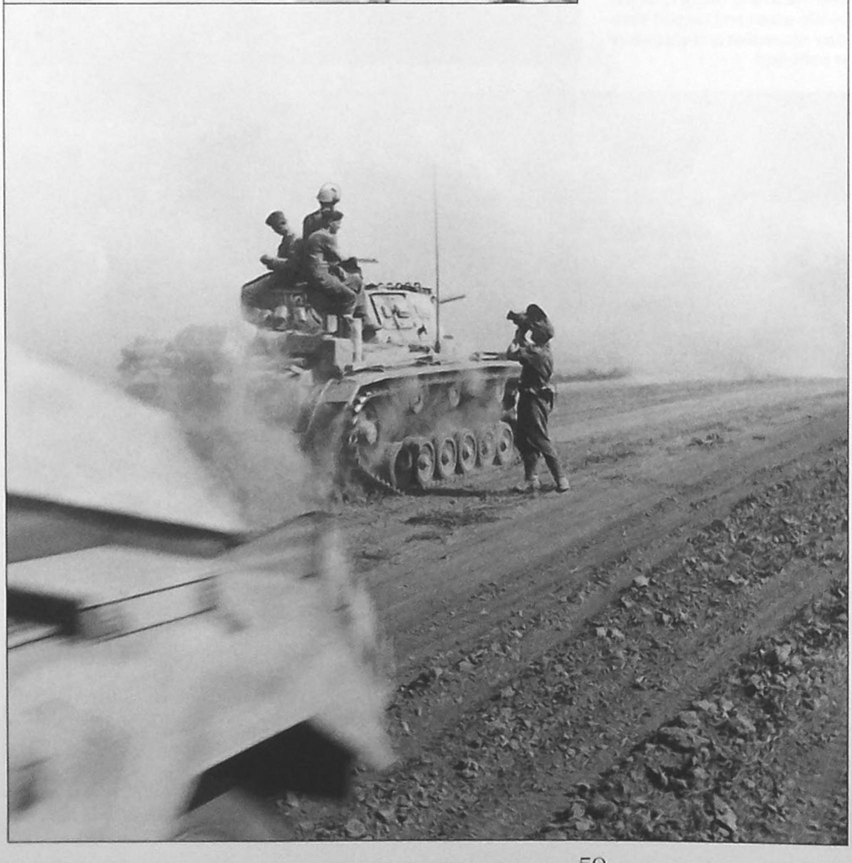
The crew of a Pz.Kpfw.III Ausf.G pause during their advance across the desert and tuck into their rations.



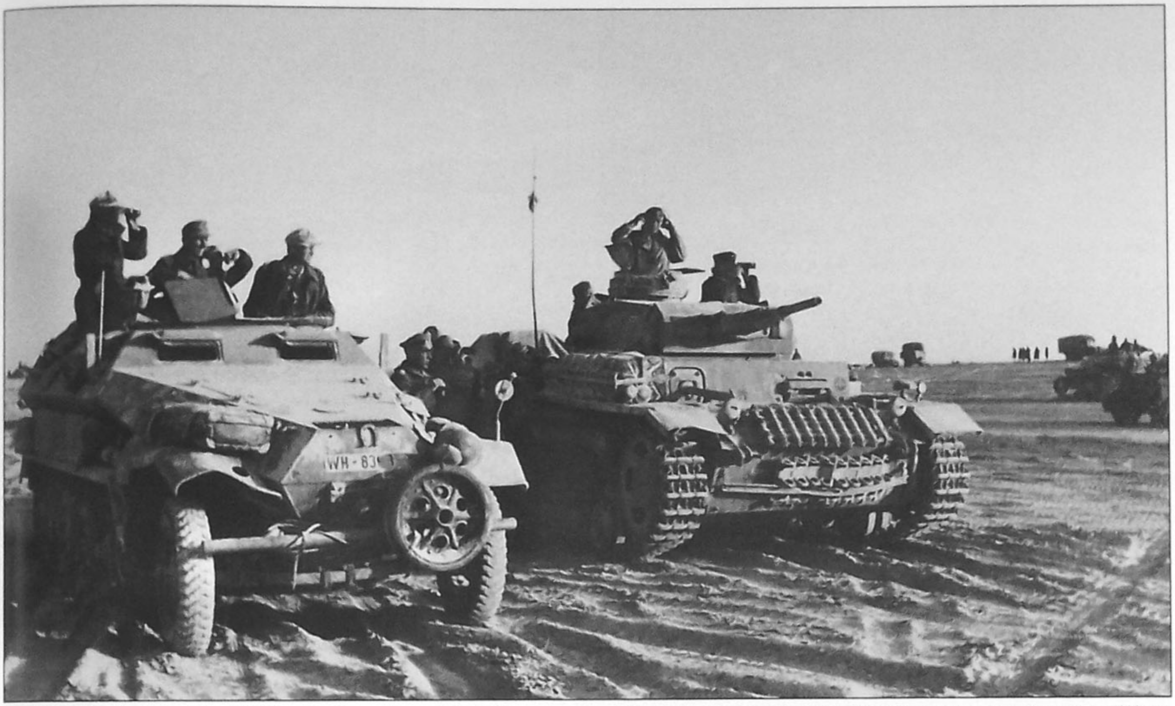
DAK troops halt in the desert after finding battlefield booty and examine a captured M1928A1 Thompson submachine gun. Of interest is the national flag draped around the spare wheel of this Volkswagen Kfz.1 car. As with many vehicles used in the desert the German national flag was widely used for aerial recognition.



A long column of various vehicles consisting of Horch cross-country cars, Opel Blitz trucks and a motley collection of other models moving across the desert bound for the arduous journey to El Alamein. In the distance a plume of black smoke raises high into the air indicating where an aerial attack has paved the path for the leading vehicles to move forward unhindered.

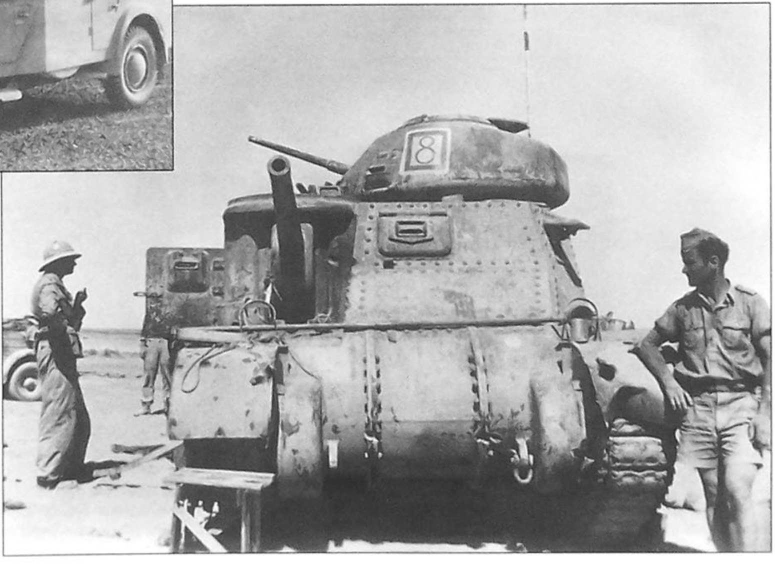


A German combat cinematic cameraman shoots a passing Pz.Kpfw.III Ausf.J while his comrade captures the scene with a still photograph. A moment later and the photo would have been ruined by the Sd.Kfz.231/232 armored car coming into view on the left. They usually worked as a team, one with a movie camera and the other with a still camera and it is to their courage that we owe the majority of wartime photographs in existence today.

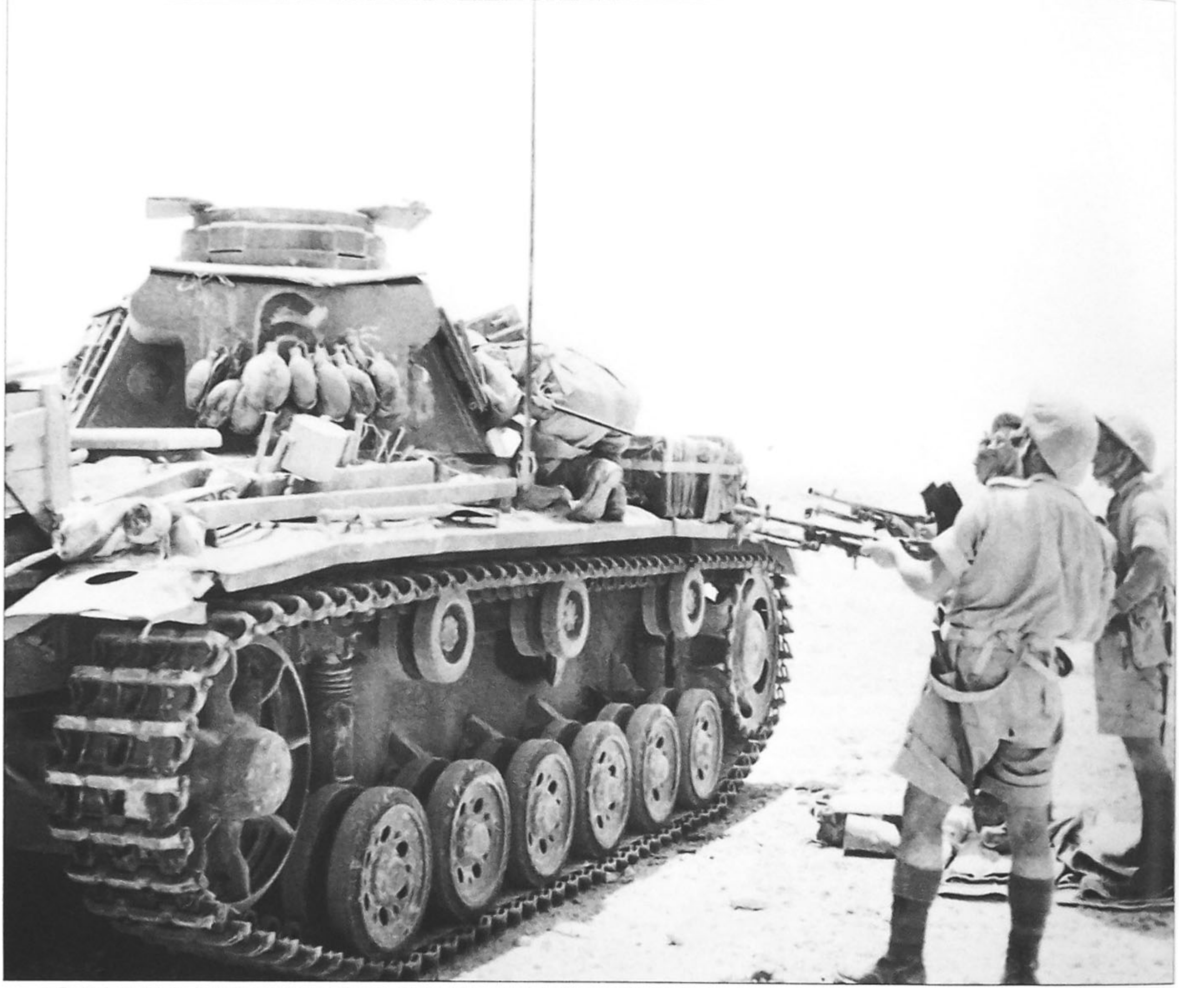


Preparing for the battle of El Alamein, the soldiers of the DAK anxiously wait for orders to move forwards. An Sd.Kfz.251 and Pz.Kpfw.III Ausf.H are poised to begin action in one of the boldest attempts made by Rommel to crush his British opponents. The half-track has a wheel attached to its front for additional armored protection. The panzer has also been given armored protection by the track links attached to its front and side. The Ausf.H is identifiable by the extra 30mm armor plate welded to the front of the superstructure and bolted to the front of the lower hull.

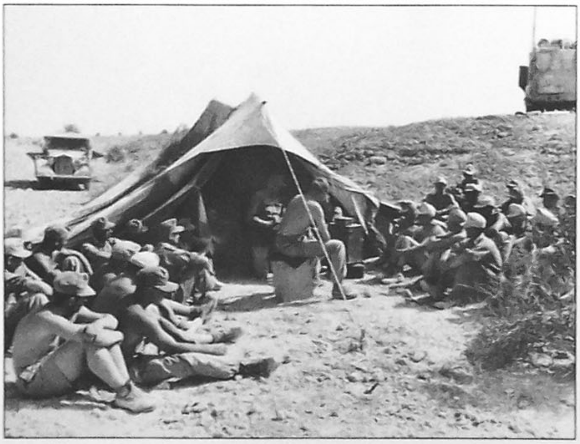
The attack on El Alamein is finally unleashed. Rommel and his staff train their eyes as DAK vehicles push forward towards the front lines. On 13 July 1942 the 21.Panzer-Division carried out a co-ordinated attack with tanks and infantry, which, due to heavy enemy fire, was soon blunted.



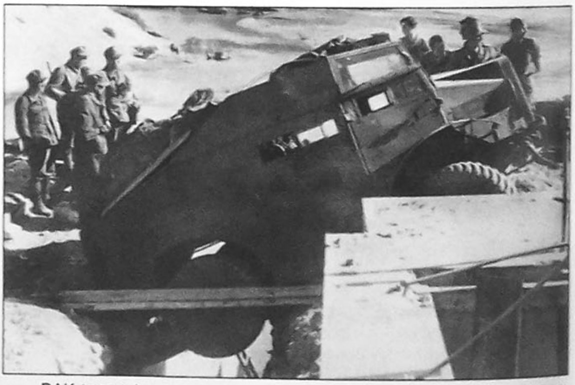
A destroyed British Grant tank being inspected by a group of DAK troops after the battle at El Alamein in July 1942.



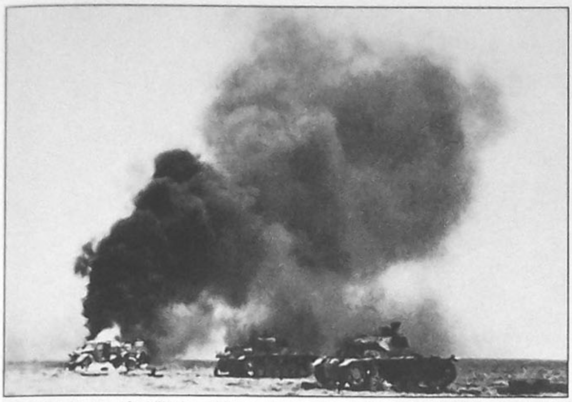
A Pz.Kpfw.III Ausf.J captured by British troops. The vehicle is heavily laden with supplies and a number of water canisters can be seen attached to the side of the turret. This tank was one of a number of vehicles that had out-run its supply lines following the battle of El Alamein, and as a consequence run out of fuel.



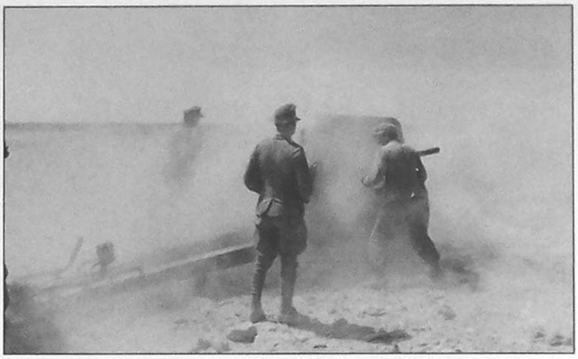
Off duty, DAK soldiers are gathered round a tent south of El Alamein in the summer of 1942, listening to a radio. Behind them is a parked light Horch cross-country car.



DAK troops have come across a British vehicle that is half-stuck in a trench. The crew of the vehicle have evidently abandoned it and fled back to their lines, fearful of capture. The Germans pressed a number of Allied vehicles in North Africa into service. The British Morris C8 4 x 4 'Quad' field artillery tractor used for towing field guns was one of the most popular the DAK used for transporting their own artillery into action.

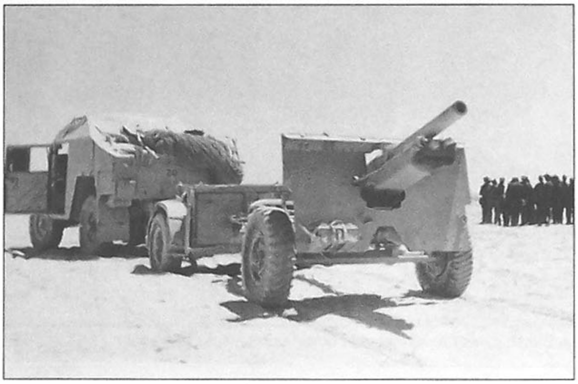


A group of Allied vehicles have been hit by shellfire, and the ammunition they were individually carrying appears to have exploded, sending huge plumes of black oily smoke into the air. Due to the extent of damage to the vehicles they appear to be unrecognizable.

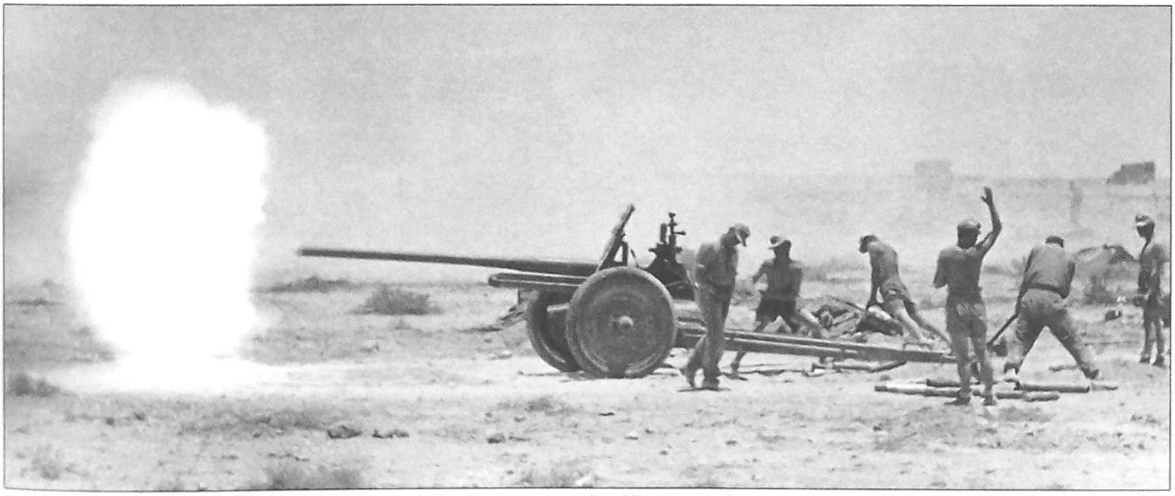


A captured Russian 76.2mm Model 1936 field gun being used in action during the summer of 1942. An anti-tank battalion consisted of three companies, with each company containing a light platoon of four 3.7cm anti-tank guns, and two medium platoons, each with three 5cm anti-tank guns. Because of its speed and mobility across country, the anti-tank battalion was a very formidable unit.

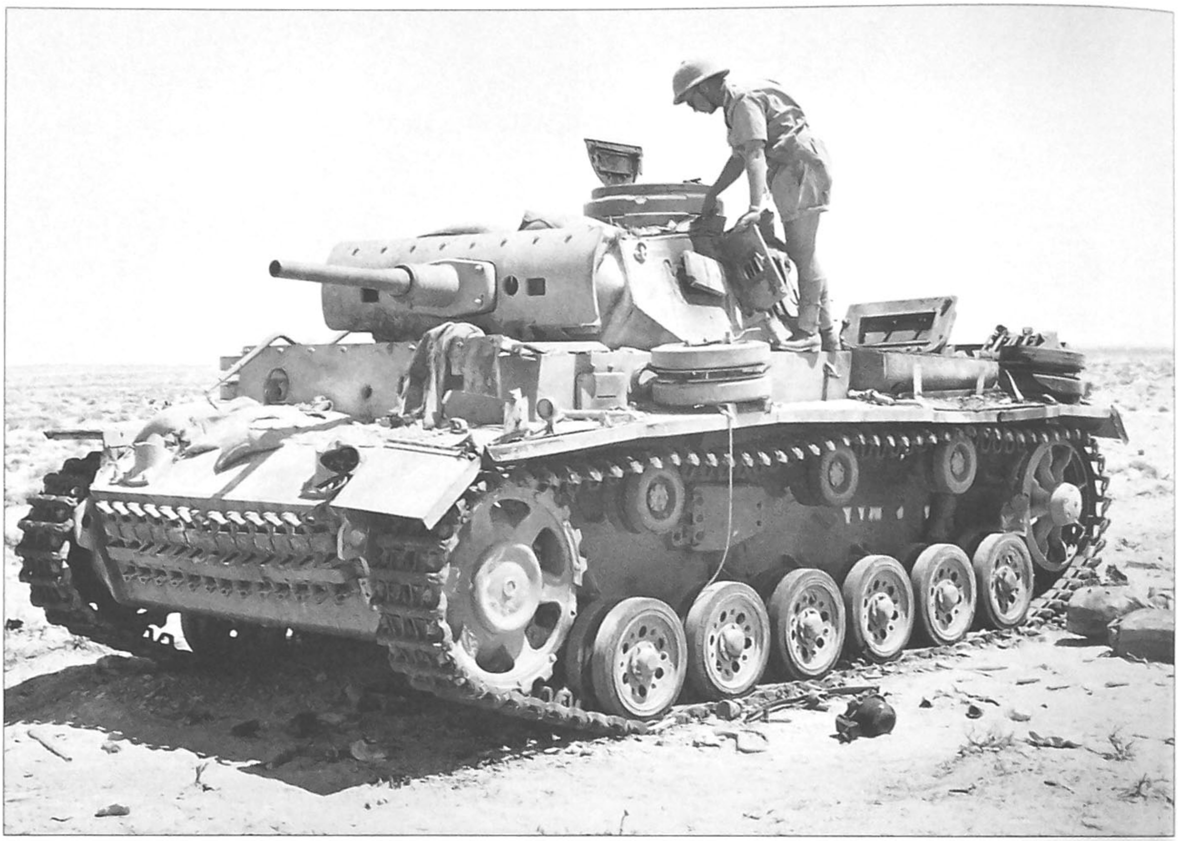
British tanks have been hit and destroyed by strong DAK defensive positions. German defensive tactics were unique out in the desert. Barrages were laid in front of the most advanced defensive positions and a screen of fire used to protect them from attacking infantry and tanks.



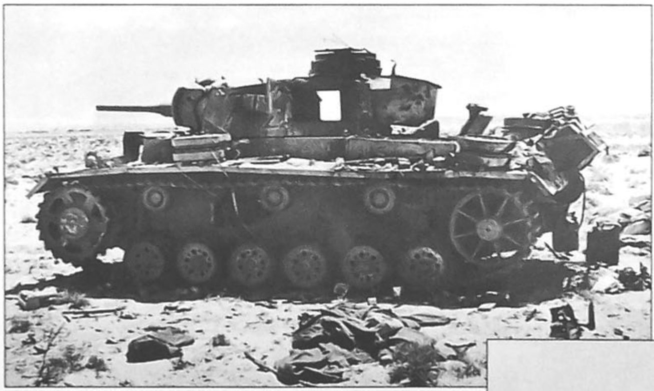
A captured British Morris C8 4x4 'Quad' field artillery tractor used for towing field guns and ammunition limbers. This particular Morris is towing a British 25-pounder, which was more than capable of knocking out Pz.Kpfw.I, IIs and even Pz.Kpfw.IIIs. A number of these guns and armored vehicles were used by the DAK against their former owners.



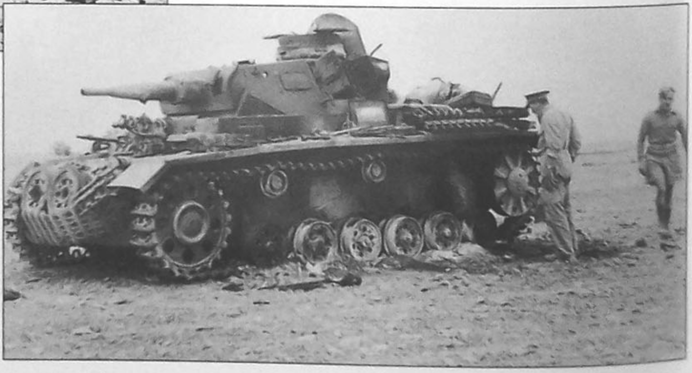
By raising his arm, the artillery commander signals for the gun crew to fire. Many types of guns were used by the DAK, including large numbers of captured British guns, and Russian field artillery pieces like this 76.2mm Model 1936 Field Gun, which had been transported to North Africa from the Eastern Front.



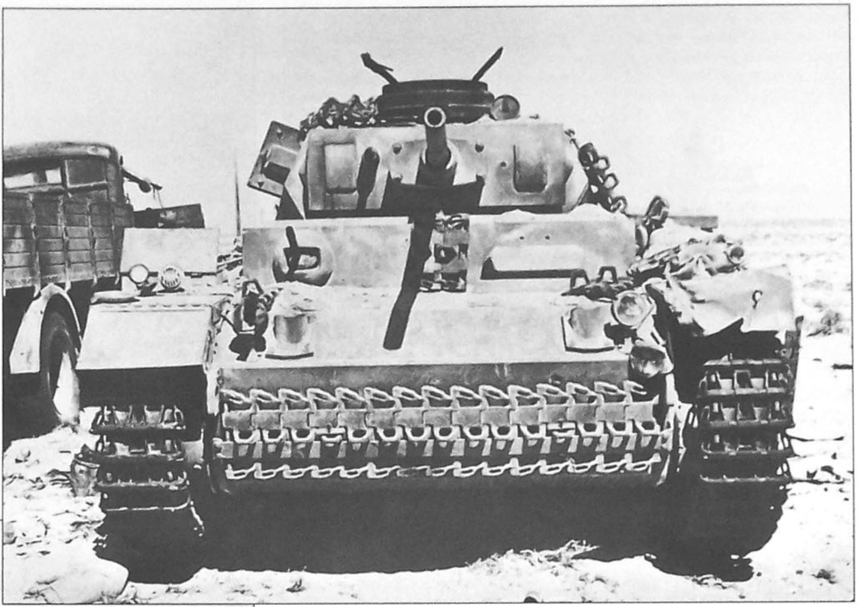
A British soldier examines a knocked out Pz.Kpfw.III Ausf.J.

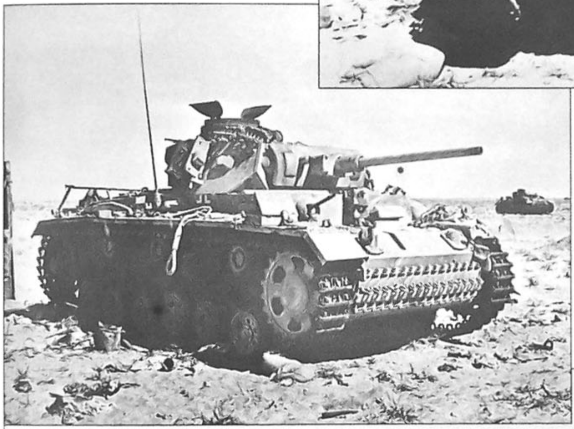


A destroyed Pz.Kpfw.III Ausf.J, which was knocked out of action during the summer of 1942. The tank carries a stowage box on the turret rear, obviously fabricated by the unit's workshops. No markings can be seen on the vehicle.

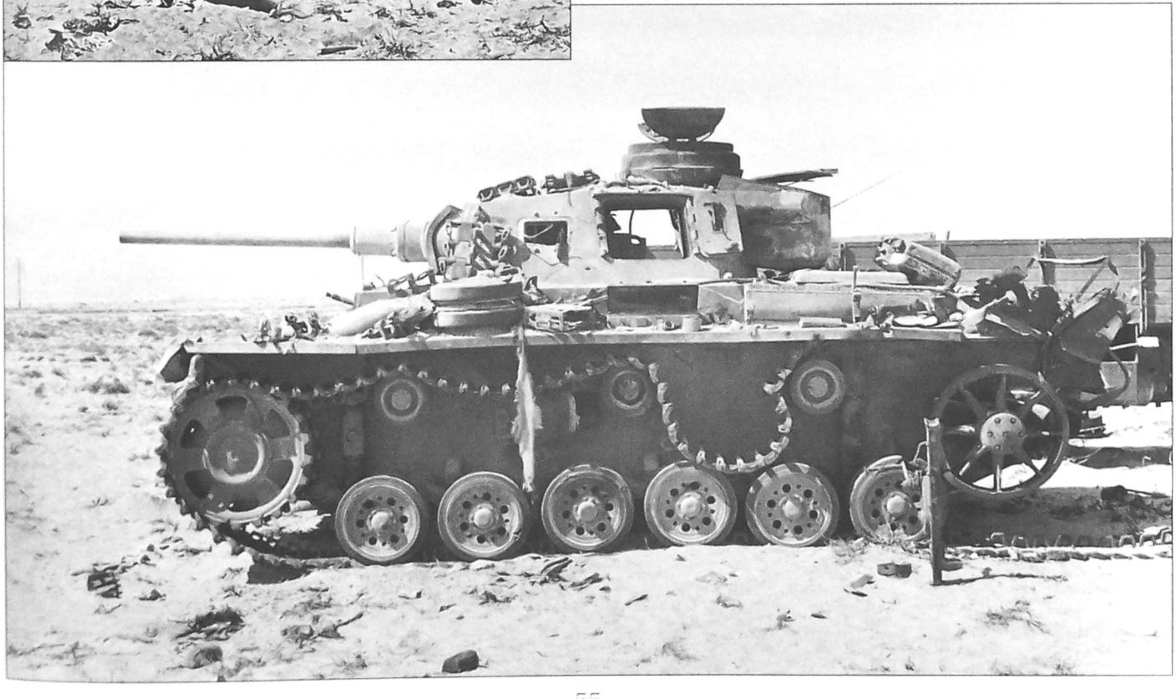


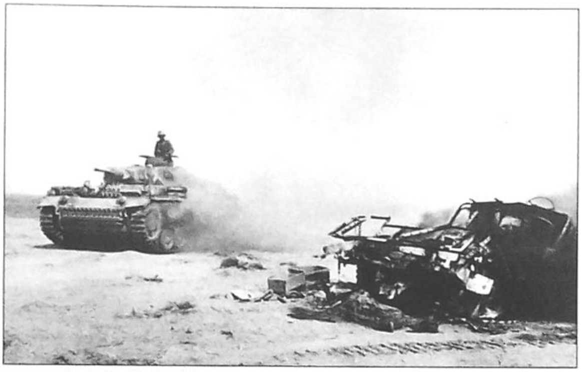
British troops examine a knocked out Pz.Kpfw.III Ausf.G in the summer of 1942. The vehicle is painted in dark sand with very light camouflage scheme of brown spots. No other markings are visible.



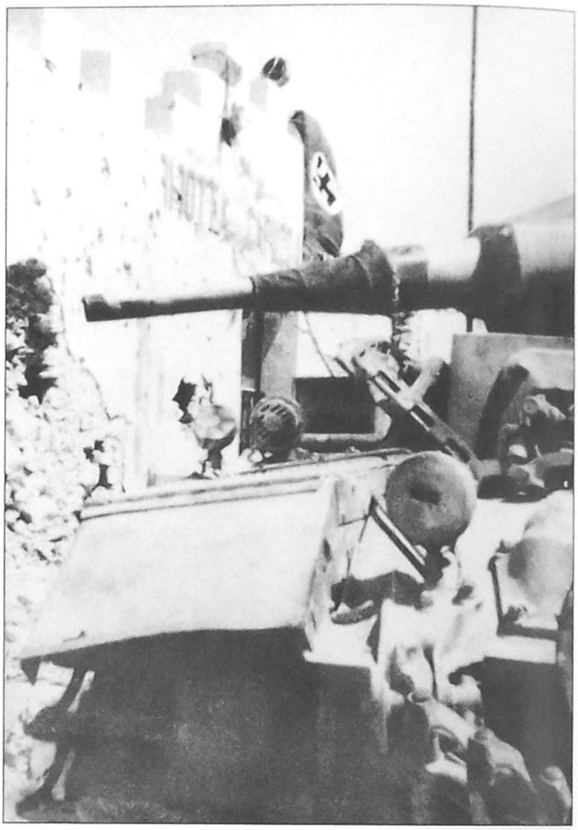


Three photographs showing the same knocked-out Pz.Kpfw.III Ausf.J. The tank is armed with the powerful long-barrelled 5cm KwK 39L/60 gun and has received additional all-round armored plating. In total there were some 1067 Ausf.J models built between December 1941 and July 1942. However, like so many of the tanks, the bulk of them saw conflict not in North Africa, but on the Eastern Front.

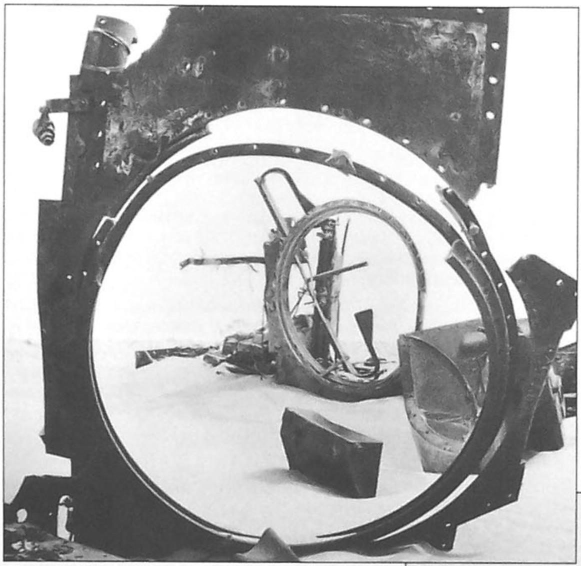




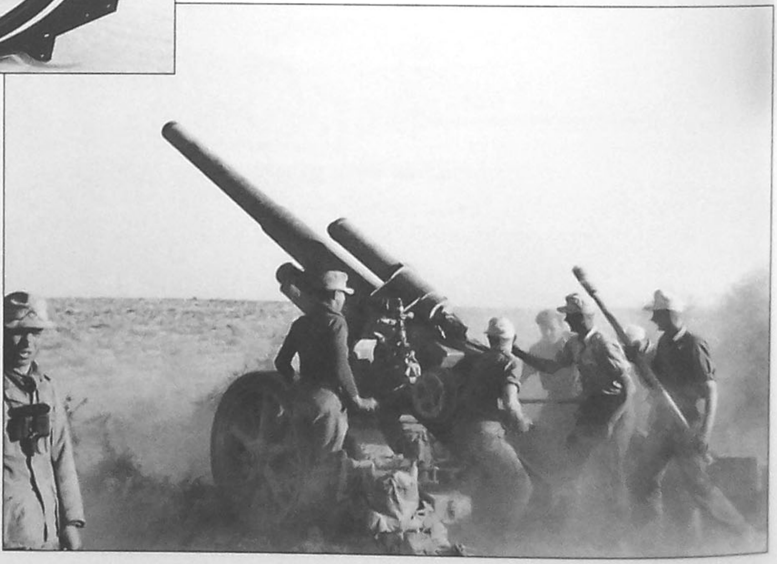
A Pz.Kpfw.III Ausf.J passes a destroyed vehicle following intensive fighting out in the Western Desert in 1942. The tank has been given a liberal application of dark yellow paint. Another form of concealment in the desert, apart from camouflage paint, was the discontinuation of visible vehicle markings with unit designations. This prevented unauthorized persons gaining battlefield intelligence regarding the identification of units and movement of troops.



A Pz.Kpfw.III Ausf.G moves into a recently captured town somewhere in the Western Desert. The vehicle's 5cm gun can clearly be seen training on an unidentified target. Behind the vehicle on a wall a national cross has been draped over the brickwork for aerial recognition.



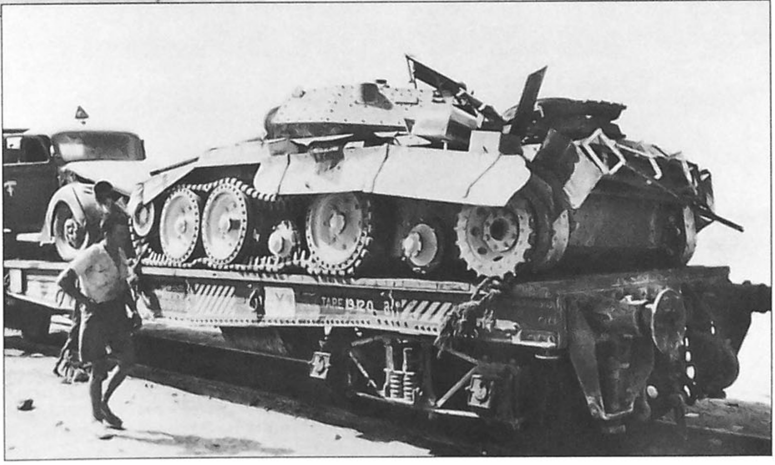
A photograph showing remnants of a Pz.Kpfw.III turret ring ripped apart during a heavy contact with British anti-tank gunfire somewhere in the Western Desert in 1942. With a high amount of explosive charge stored inside armored vehicles their ignition normally meant the absolute destruction of a tank and a high fatality rate among the crew.



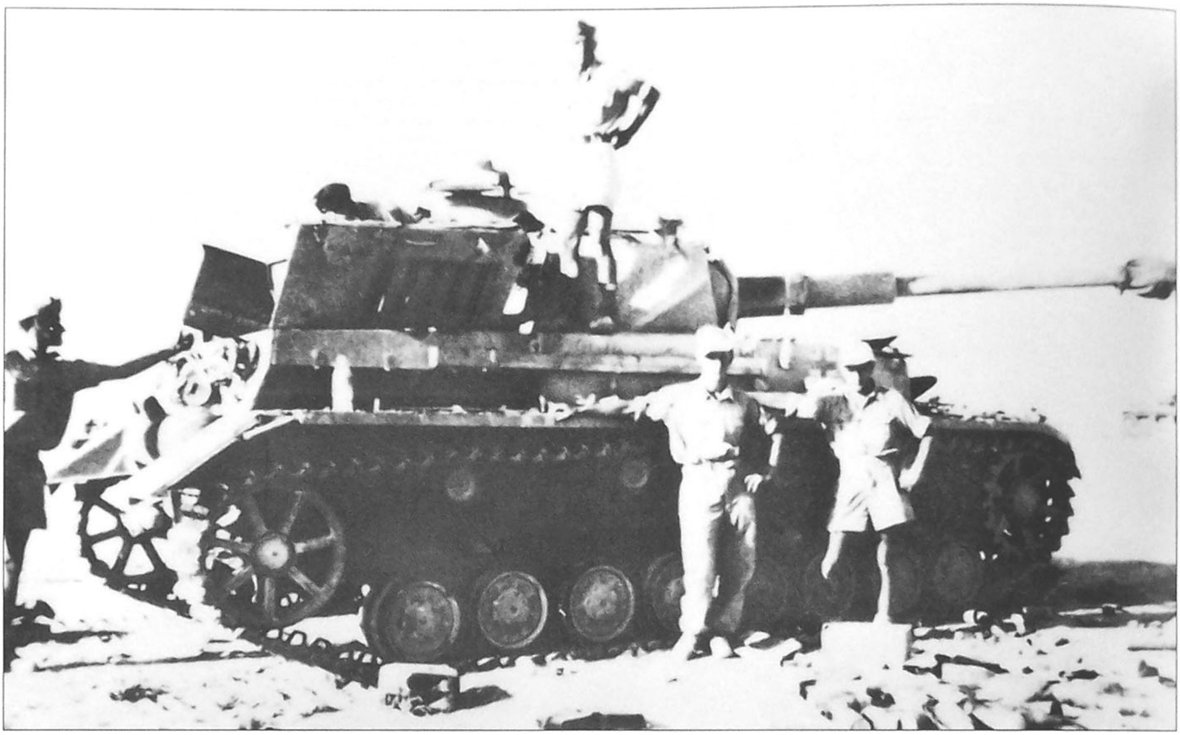
A 15cm sFH18 in its firing position near El Alamein in September 1942. In command of the battery is a technical sergeant, who can be seen on the left. Dust is evident from the last round fired against enemy positions. Another projectile has been pushed forcefully into the barrel with the long rammer, followed by the cartridge case with the specified number of charges.

Rommel stands in his command car while a member of his staff briefs his officers. The Desert Fox was, without doubt, a master tactician. His officers and personal staff soon recognized a commanding intelligence of rare capacity. Although Rommel's tactical plans were sometimes over-ambitious, his Blitzkrieg advance through the desert was supported by the authorities in both Berlin and Rome.

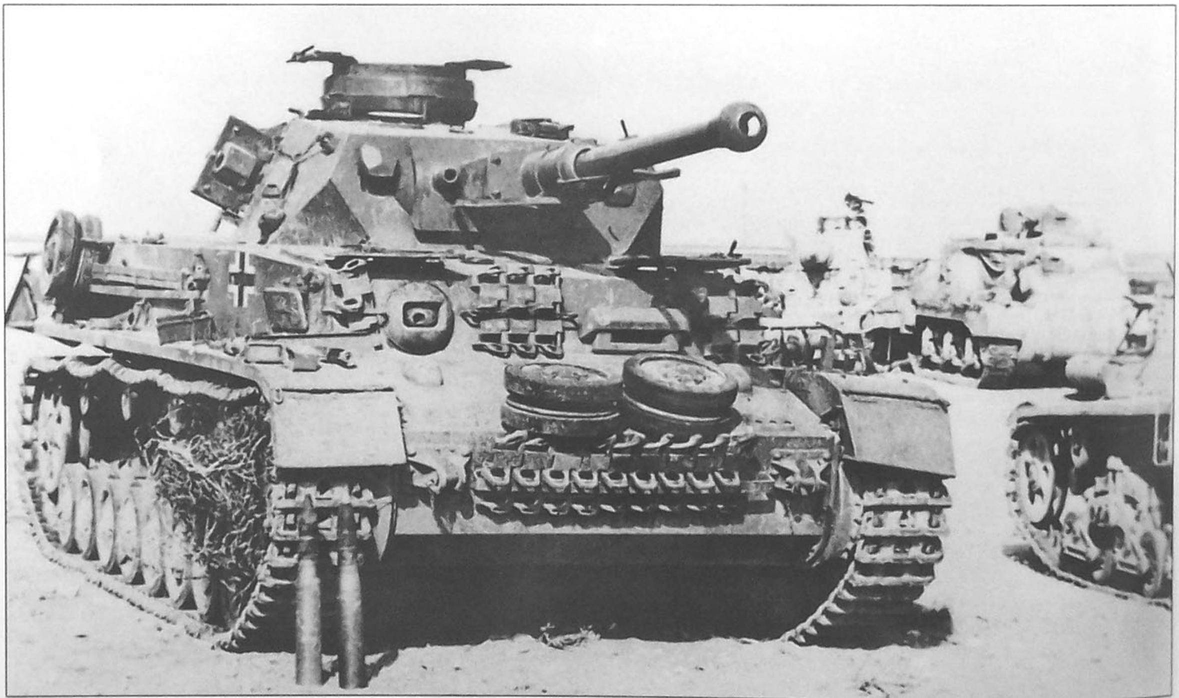
Standing in the front of his light Horch cross-country staff vehicle Rommel confers with one of the members of his staff. He was often seen standing in his command car: his constant presence on the front lines was an inspiration to his men and the key to his leadership.



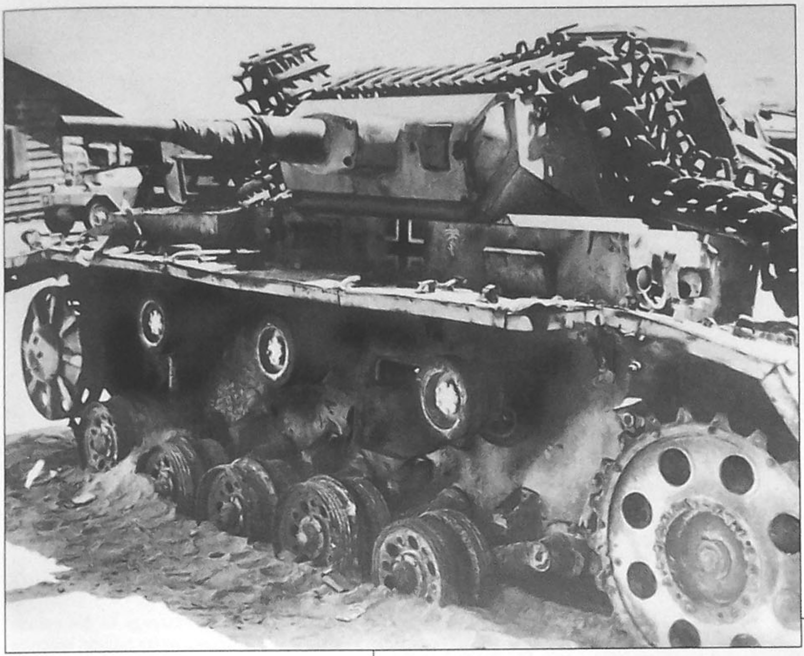
A badly damaged British Crusader is being transported by railcar.



The crew of a Pz.Kpfw.IV Ausf.F2 have halted in the desert following a mechanical fault. The engine compartment doors on the rear deck can be seen fully opened. This tank is armed with the long barrelled L/43 7.5cm gun. Note the protective cover over the muzzle brake of this tank. This was used primarily to avoid any unwanted sand particles entering the barrel when the gun was not in any immediate action. The Pz.Kpfw.IV was probably the most effective and deadliest tank used in the DAK arsenal.

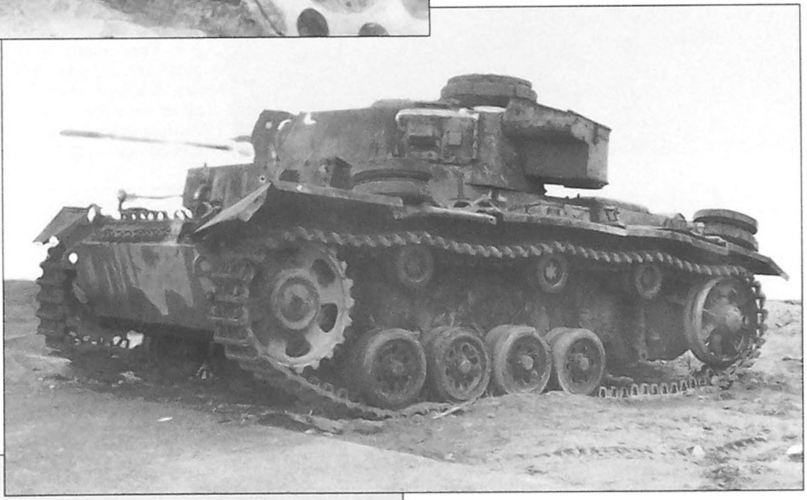


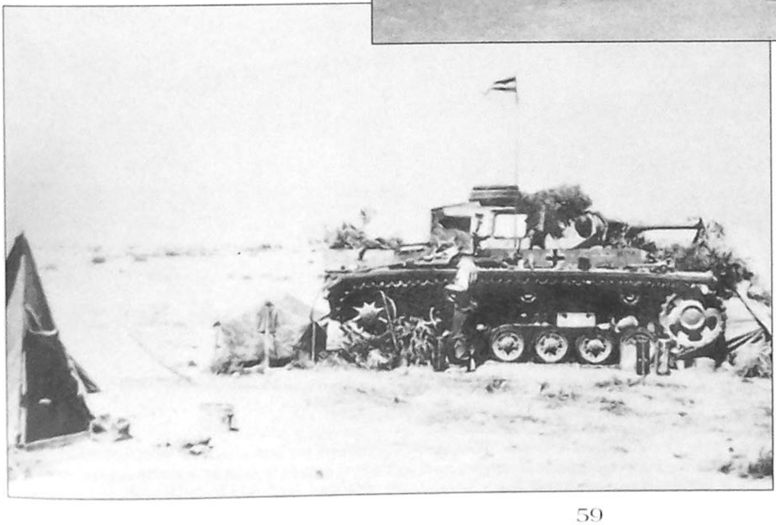
A photograph of a captured Pz.Kpfw.IV Ausf.F2 armed with a 7.5cm L/43 gun. The vehicle still retains its original color scheme of dark gray. Track links can clearly be seen attached to the tank's frontal hull for additional armored protection.



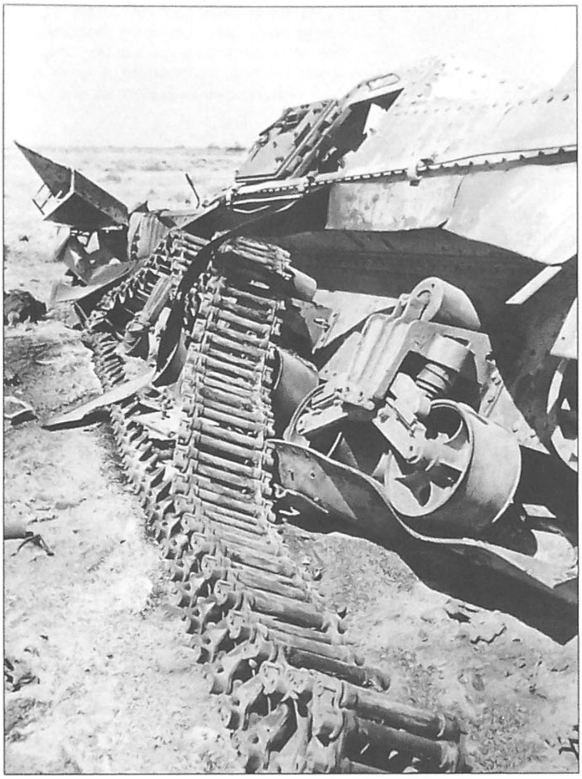
A badly damaged Pz.Kpfw.III Ausf.G without track links around its road wheels. One of its track links can be seen laid out across the hull. This vehicle is more than likely awaiting cannibalization for vital spare parts.

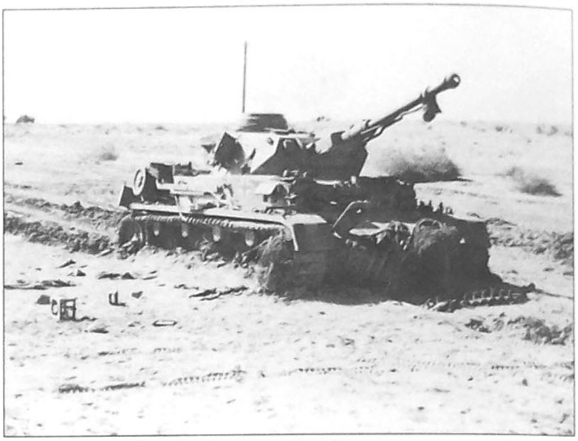
An abandoned Pz.Kpfw.III Ausf.J stands in the open desert. This vehicle appears to be undamaged and has more than likely either experienced mechanical problems, or simply run out of fuel. By late 1942 there was a huge fuel supply shortage in the panzer divisions of the DAK, which consequently saw many vehicles running out of fuel, and the crew having no other alternative but to abandon their machines. In some instances crews actually set fire to the armored vehicles in order to avoid them falling intact into enemy hands.





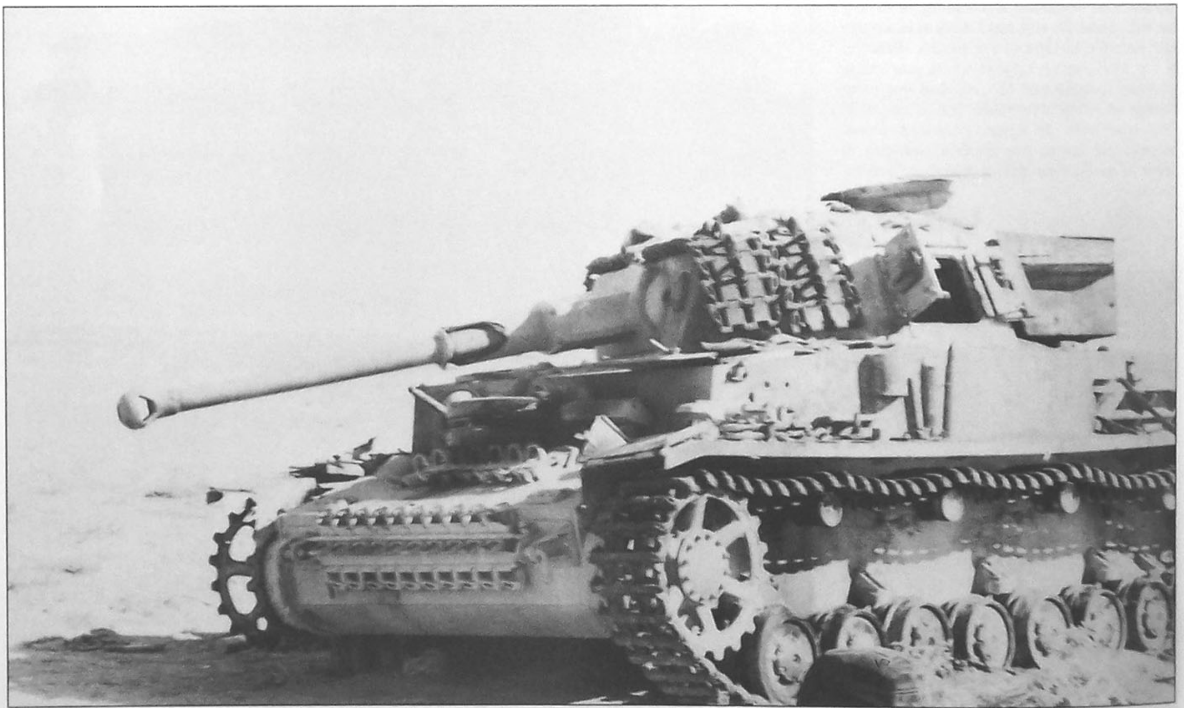
Out in the North African desert a Pz.Kpfw.III Ausf.J displaying a command pennant. The tank is completely covered with a thinly applied coat of yellow camouflage paint. Foliage too has been applied to this vehicle. A white outline Balkenkreuz can clearly be seen painted on the side. Although the Pz.Kpfw.III was the most popular panzer in North Africa, replacements in late 1942 barely exceeded losses, leaving the DAK panzer divisions in a weakened condition.





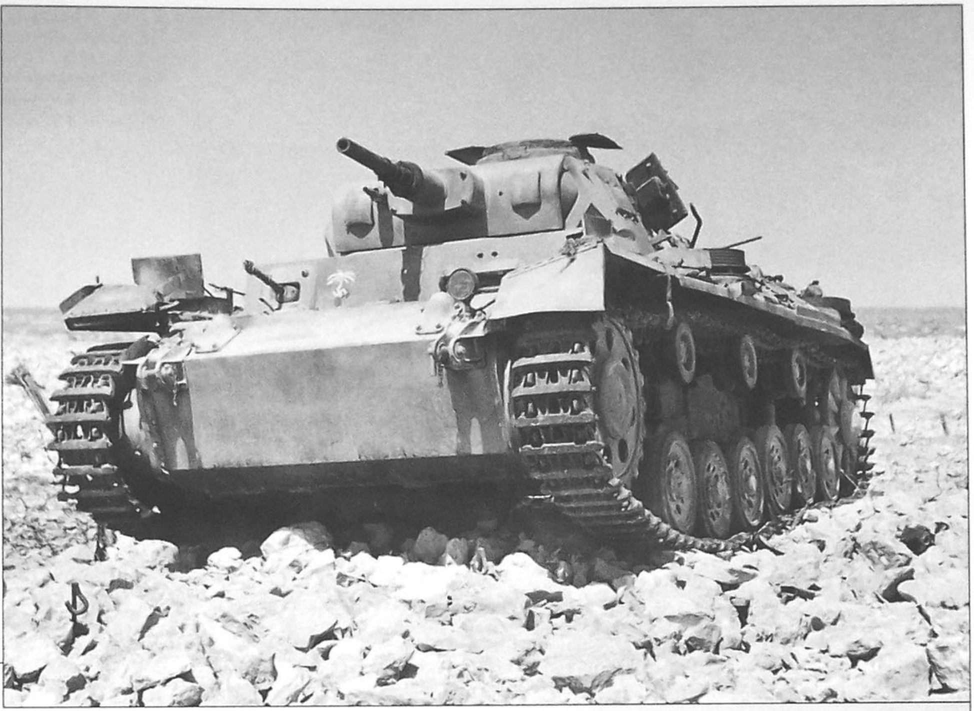
A Pz.Kpfw.IV Ausf.F2 has more than likely received an anti-tank shell round and as a consequence been knocked out of action. The vehicle has come to a halt in soft sandy terrain and its tracks can clearly be seen. The tank's 7.5cm long barrel is stuck in the elevated position. It is painted in overall dark yellow.

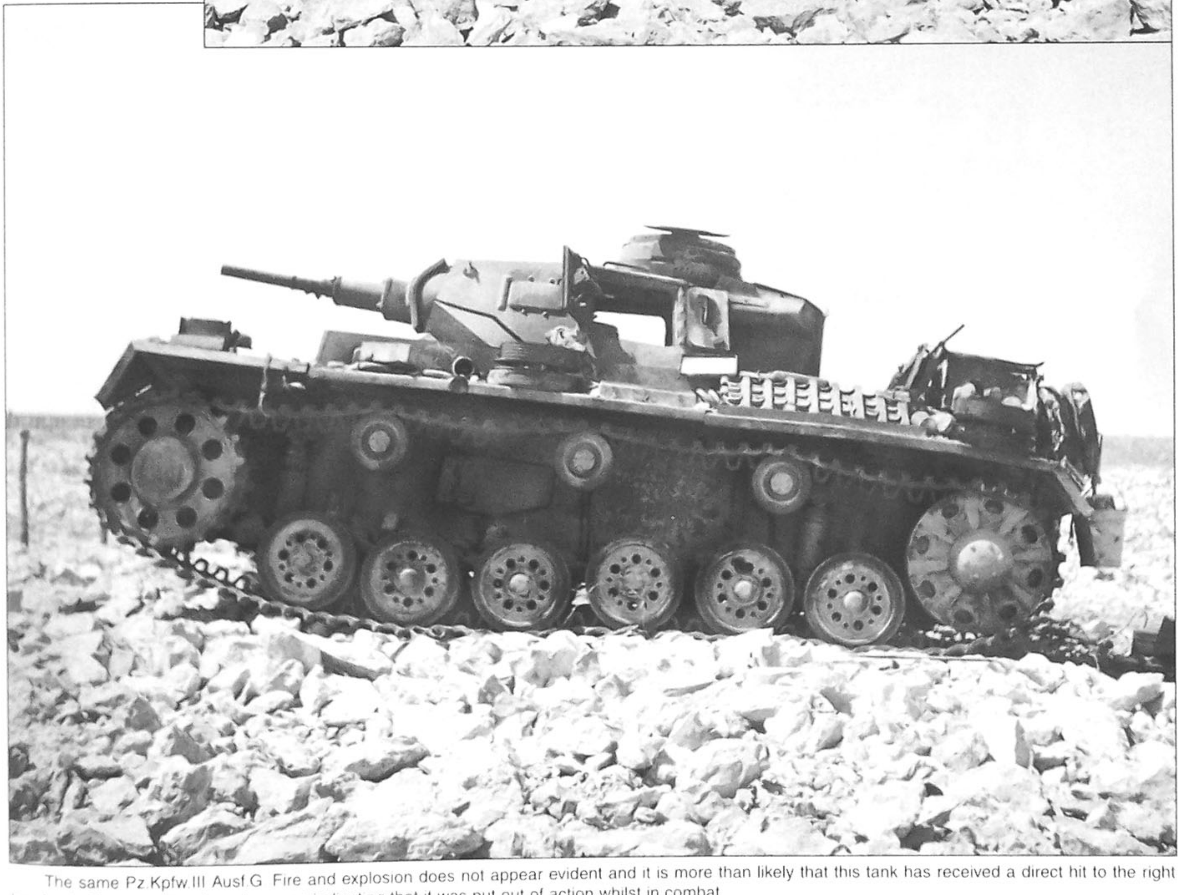
A destroyed M3 Grant tank. The extensive damage to the vehicle suggests that it may have caught fire and exploded as its rounds, machine gun ammunition, hand-grenades, and signal flares stowed on board detonated. By late 1942 most of the newly acquired British tanks were American built Sherman's and Grants, whilst only one-sixth of German built tanks were Pz.Kpfw.IV. In late October 1942 the DAK only had 173 Pz.Kpfw.III against 422 Grants and Sherman's. For the Pz.Kpfw.IV, the total was 38 against 607 Crusaders, Stuarts and Valentines.



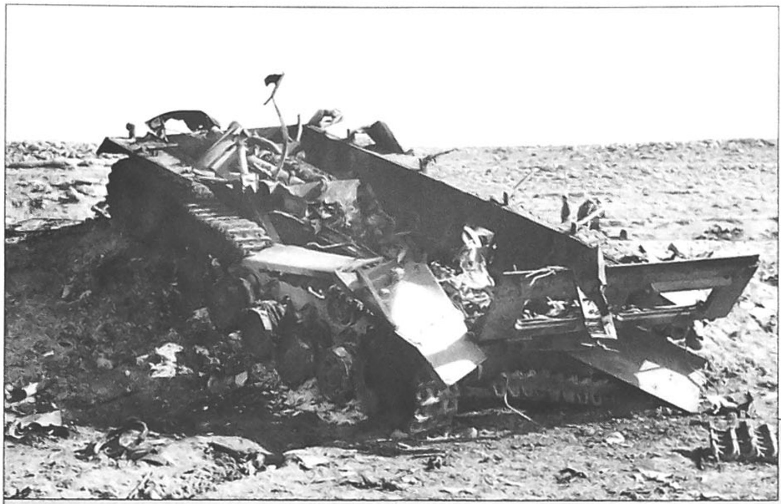
A knocked out Pz.Kpfw.IV Ausf.F2 that is mounting the very powerful long-barrelled 7.5cm KwK40 L/43 gun. The tank has track links attached to both the front and the turret for additional armored protection. The turret hatch is open, probably whilst it was still in action, and used later an escape route for some of the crew.

A knocked out Pz.Kpfw.III Ausf.G armed with a 5cm gun mounted in the turret. The vehicle is painted in overall dark yellow and carries the now familiar DAK insignia of a palm tree with Swastika painted on the front of the tank next to the MG-34 machine gun. No other markings are visible.

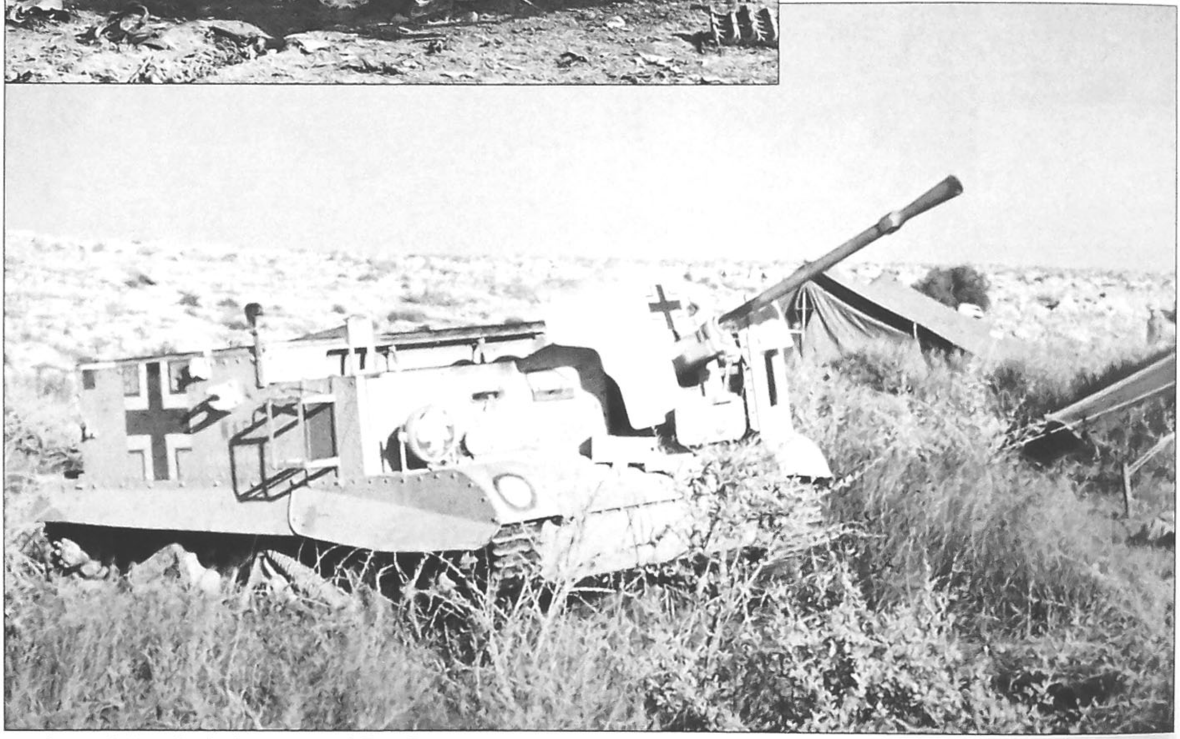




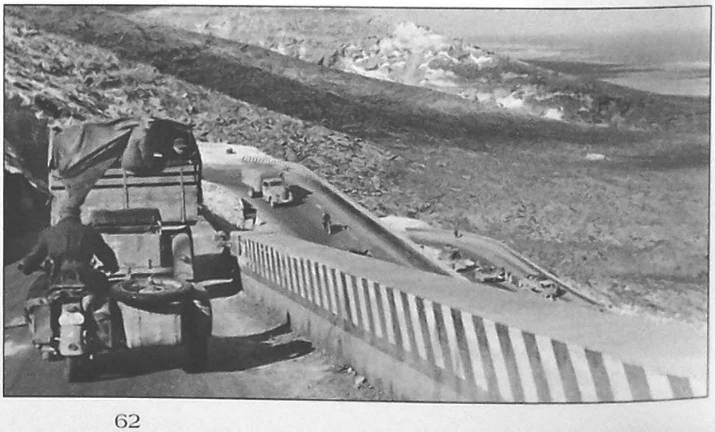
The same Pz.Kpfw.III Ausf.G. Fire and explosion does not appear evident and it is more than likely that this tank has received a direct hit to the right hand-side. The turret hatch is also open indicating that it was put out of action whilst in combat.



A photograph showing a Pz.Kpfw.III immediately after it received a direct round from a British tank. The vehicle has ignited and been literally blown to pieces. It is more than likely that tank shells that are stored inside the vehicle have caused the explosion.

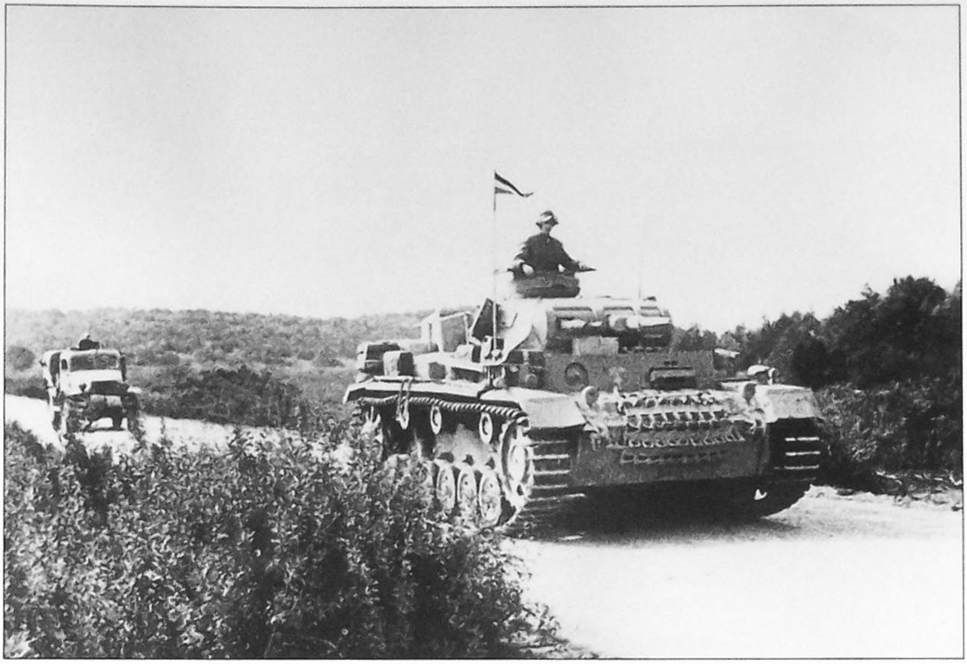


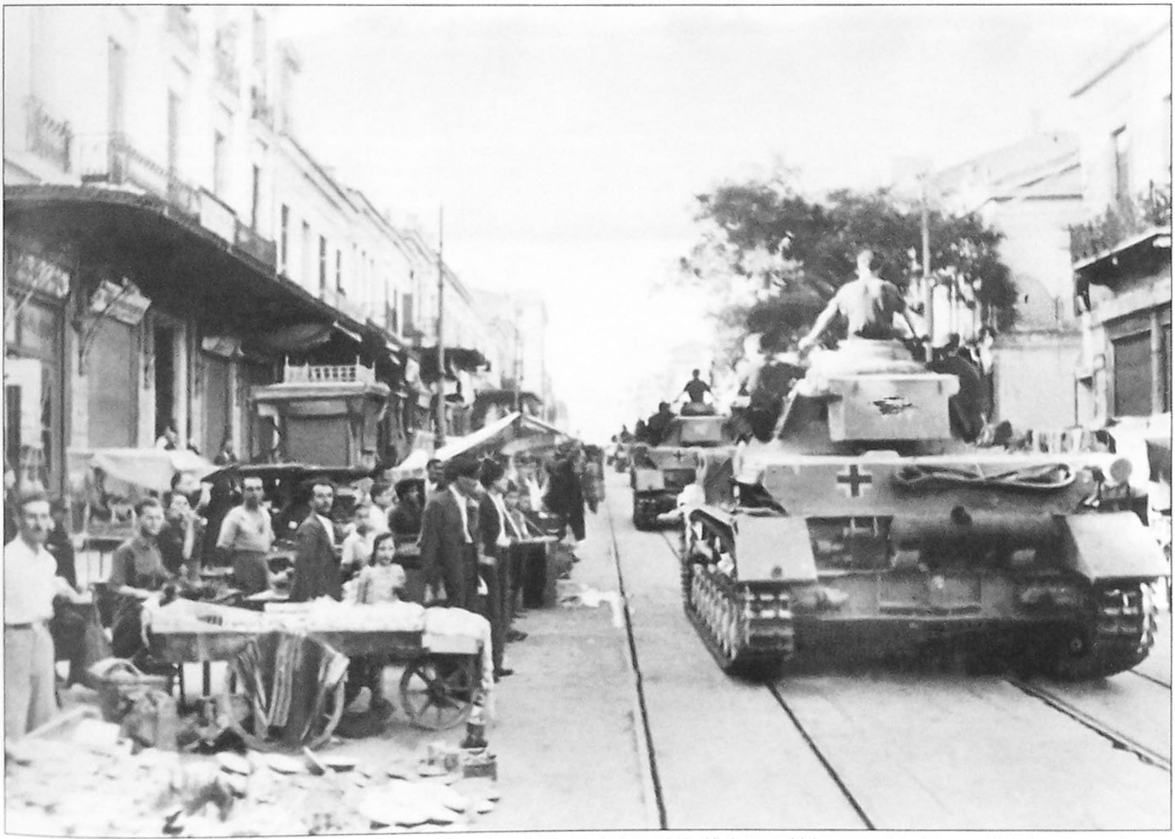
A rare photograph showing a captured Bren Gun Carrier that was modified by the British to mount a 25mm Hotchkiss anti-tank gun. This vehicle is being used by an unidentified DAK armored unit. The Bren Gun Carrier still retains its original dark yellow paint, but the new owners have painted prominent national crosses, which have been applied to the side of the hull and to the front of the gun shield.



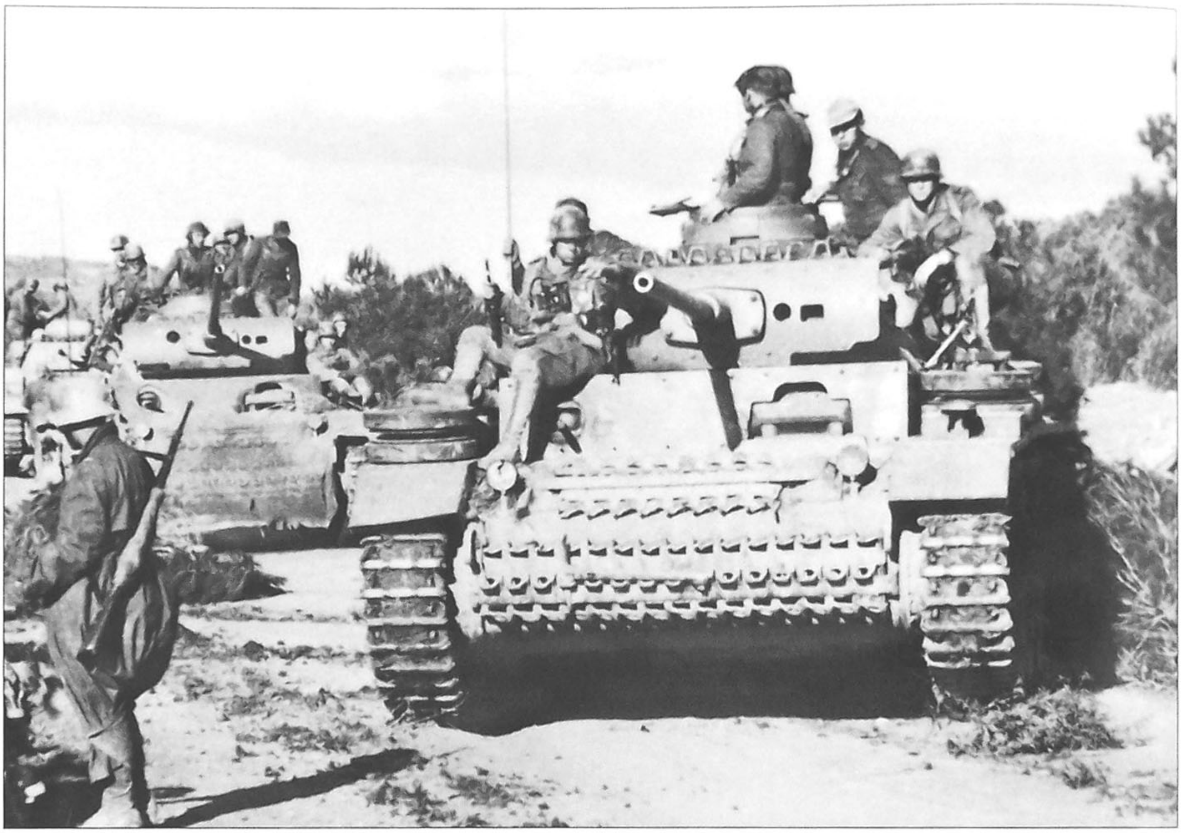
A motorcycle combination and Opel Blitz truck wind down a hillside. Both vehicles are painted in dark yellow. The truck is towing a trailer of supplies and the DAK insignia with palm tree and swastika can be seen painted in white on the rear.

A Pz.Bef.Wg.III Ausf.H moves along one of the very few good roads in North Africa. This particular tank has been given additional armored protection by use of track links attached to the front of the vehicle. The panzer is painted in overall dark yellow. Of interest is the DAK insignia in the shape of a palm tree painted also in white between the machine gun and driver's visor. Note that the tank is heavily laden with provisions stowed on the engine deck.

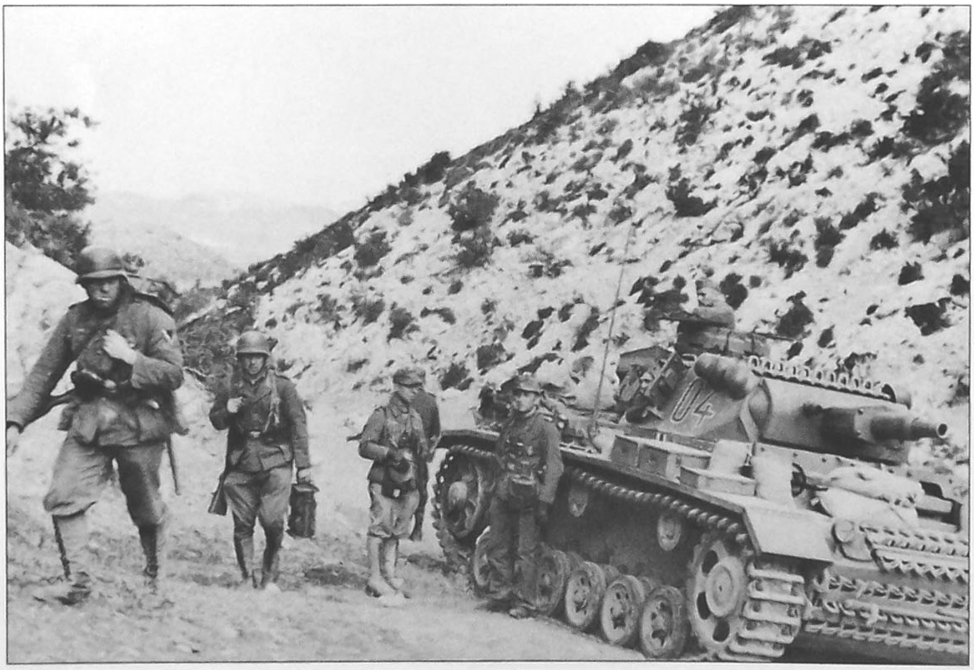




A long column of Pz.Kpfw.IV Ausf.G destined for the front lines in Tunisia in late 1942. All these vehicles are painted in overall dark yellow and carry stowage bins attached to the rear of the turret. Also visible is the Balkenkreuz, which is painted on the rear of the vehicle in black with a white outline.

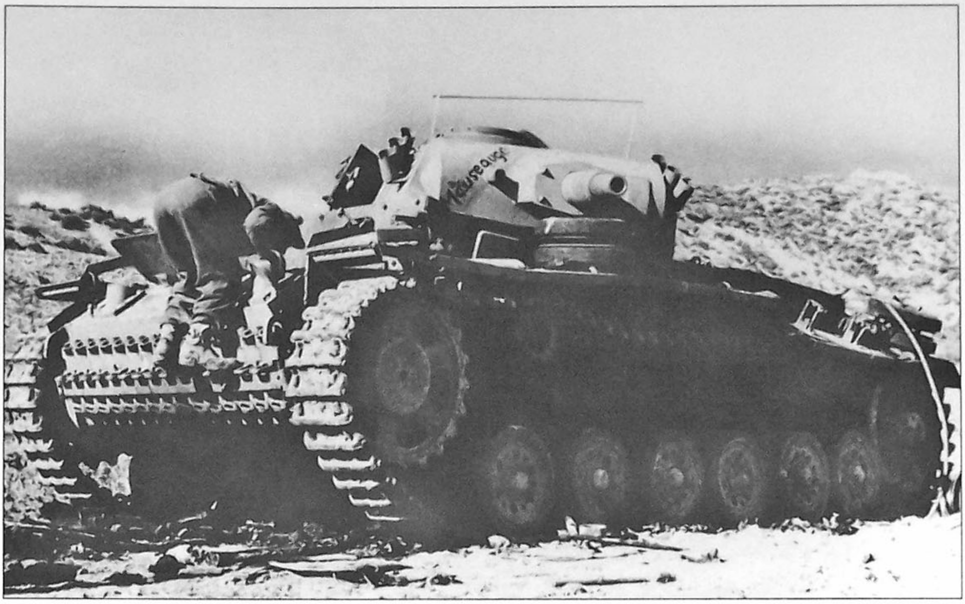


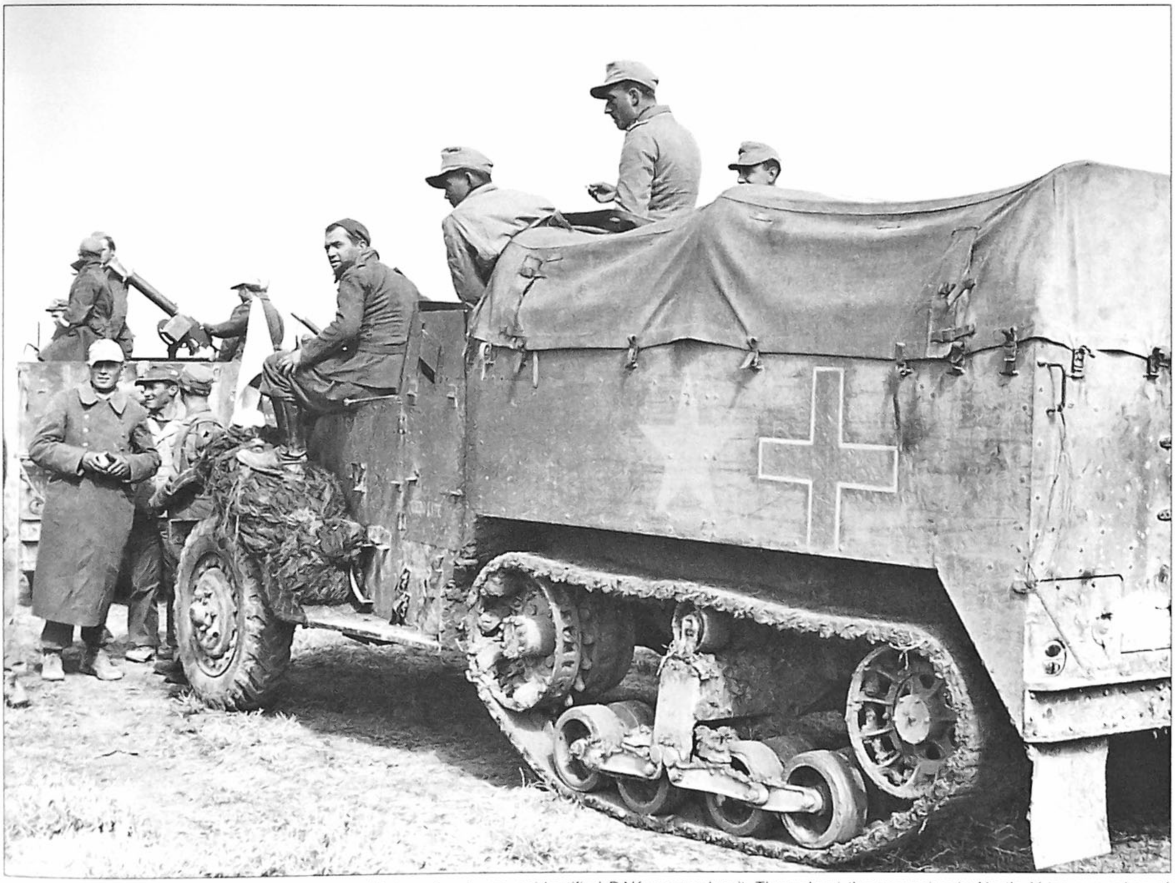
A column of Pz.Kpfw.III Ausf.L's from 10.Panzer-Division have halted on a track somewhere in Tunisia in 1943. A number of DAK Panzer Grenadiers have hitched a ride onboard the tanks to ease the burden of the long marches, which they were compelled to endure almost daily in soaring midday temperatures. Track links can clearly be seen attached to front of the hull of the tanks for additional armored protection.



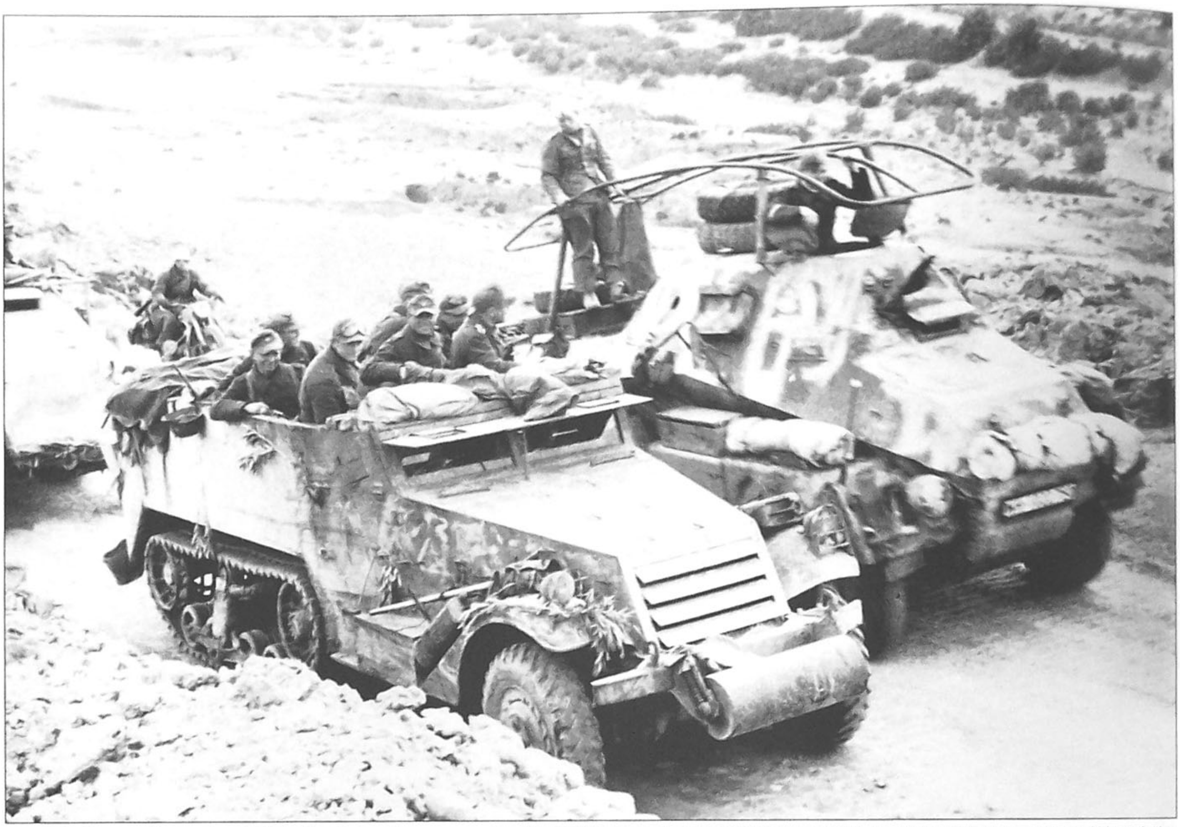
Two fully armed Panzer Grenadiers on patrol pass a Pz.Kpfw.III Ausf.N from sPz.Abt.501 that has halted on a sandy road somewhere in a small pass in the Tunisian hills. The Pz.Kpfw.III Ausf.N has a short L/24 7.5cm gun. Also for additional armored strength note the track links attached to the front of the hull and on the roof of the turret. The tactical number of the tank '04' is painted on the side of the turret in red with a white outline.

A captured Pz.Kpfw.III Ausf.N with sPz.Abt.501 being examined by a British soldier in Tunisia, who is standing on the additional track links, which have been placed on the front hull for extra armor protection. The vehicle is armed with a 7.5cm gun. The tank has been crudely painted in overall dark yellow with parts of the original dark gray showing.

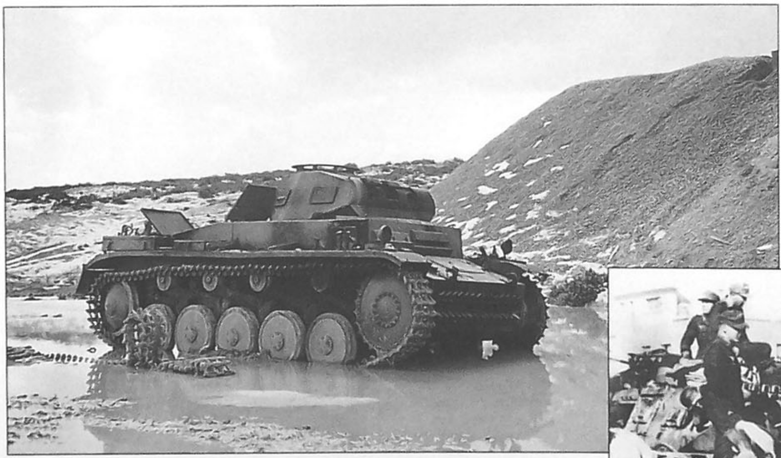




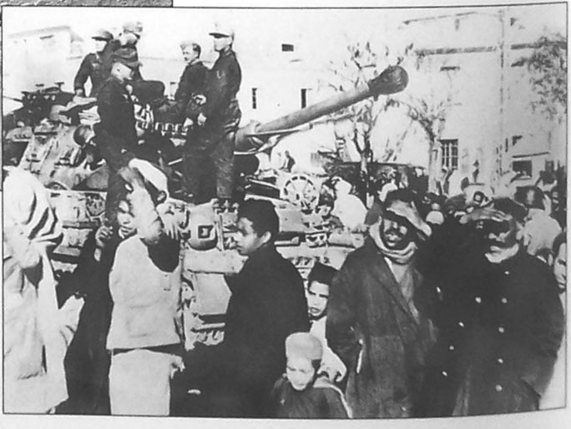
A captured U.S. Army M3 halftrack pressed into action by an unidentified DAK armored unit. Throughout the campaign in North Africa a number of captured enemy vehicles were used by the DAK. To avoid friendly fire, the Germans drew special attention to them and printed national crosses on them. However, no visible markings on this halftrack can be identified.



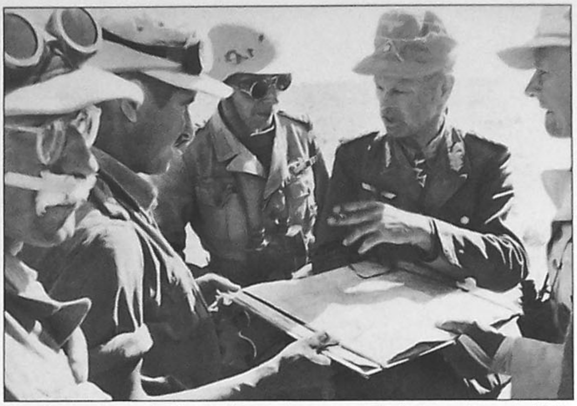
This time another captured M3 halftrack from the same unidentified DAK armored unit has halted alongside an Sd.Kfz.263 armored car. Although the use of captured vehicles helped bolster the huge losses sustained by the DAK, some vehicles proved technically unreliable and finding spare parts was always a problem.



A Pz.Kpfw.II Ausf.F sits abandoned in a large pool of water following a heavy downpour of rain in Tunisia in 1943. Although the Pz.Kpfw.II was used extensively in North Africa during the early phases of the campaign it was undoubtedly under-gunned. Because of its thin armor, which gave it minimal protection on the battlefield, many of them were consequently lost in action.



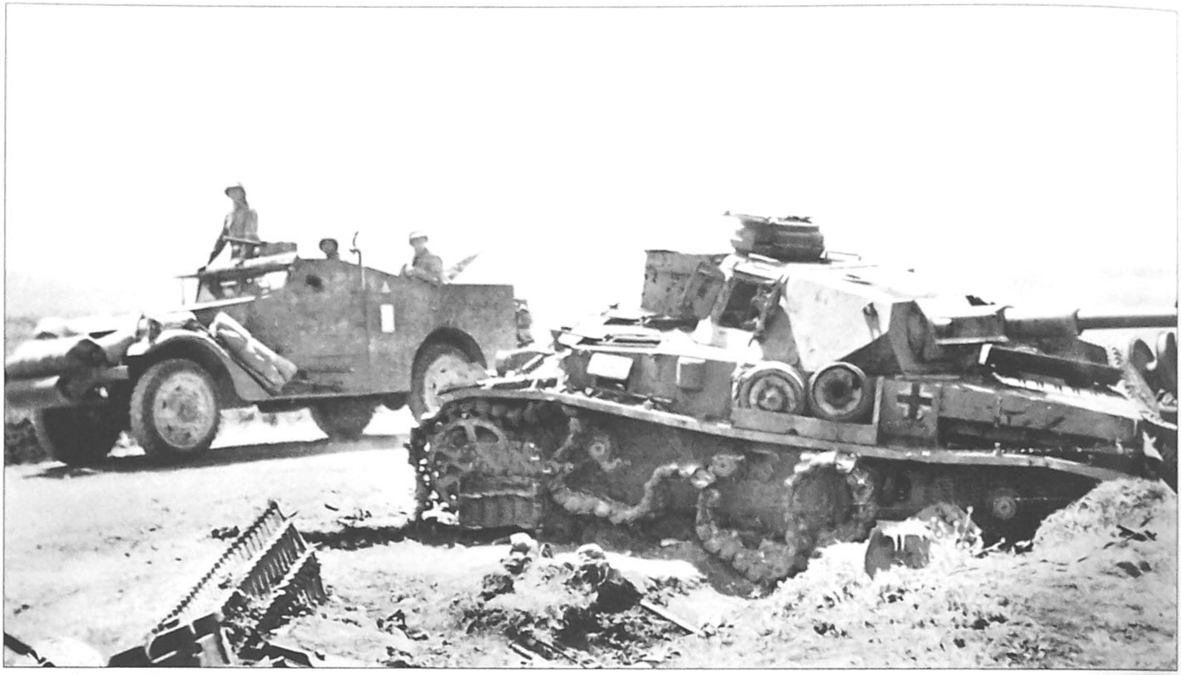
A Pz.Kpfw.IV Ausf.F2 halts inside a town during the DAK retreat through Tunisia in 1943. The panzer crew are standing on top of the vehicle's hull and observe the local inhabitants as they flock around the tank. The Pz.Kpfw.IV Ausf.F2 had enhanced armored protection and improved muzzle brake on the main 7.5cm L/43 gun.



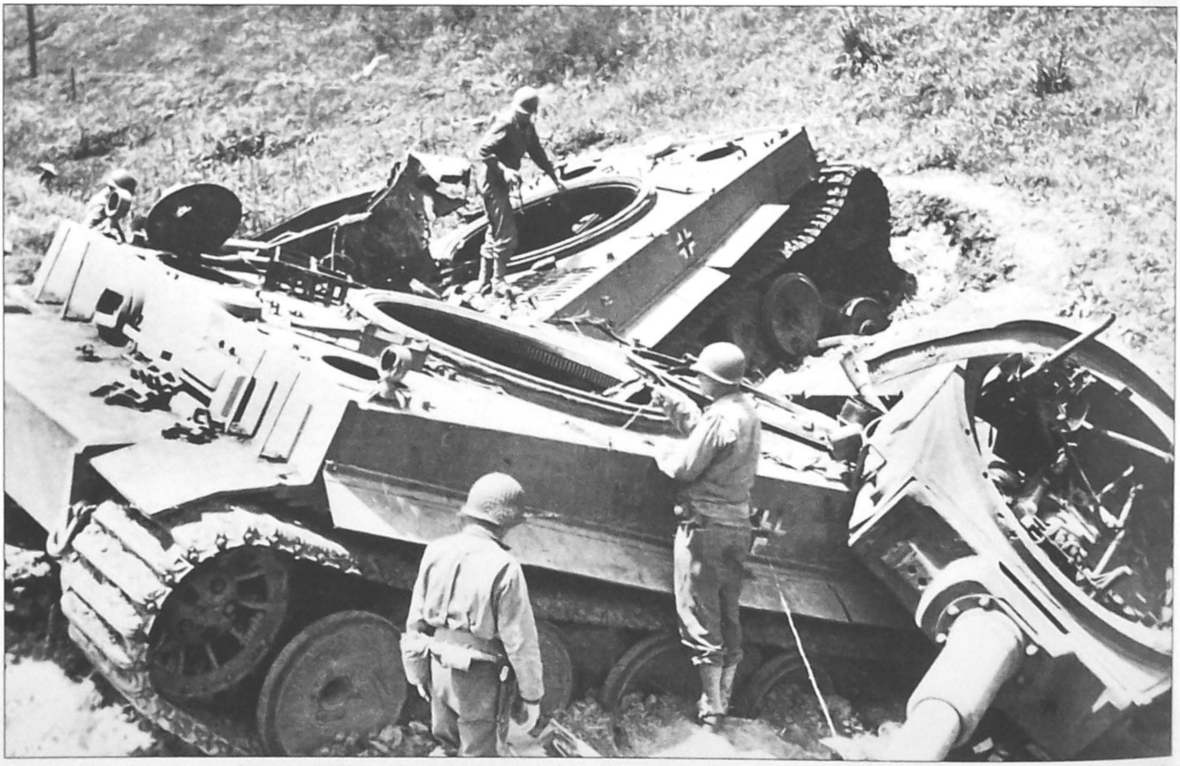
Rommel's staff officers debate the next strategic move in early 1943. Despite being in full retreat the German commanders were determined to fight. On 19 February, the DAK undertook an advance on the Tunisian town of Sbila, 38 km north of Sbeitla.

A Marder II self-propelled anti-tank gun in the streets of a Tunisian town in early 1943. This vehicle mounted the potent 7.5cm PaK 40 anti-tank gun on the obsolete chassis of the Pz.Kpfw.II. There were 576 produced from June 1942 to June 1943 with a further 75 converted from Pz.Kpfw.II from July 1943 to March 1944.

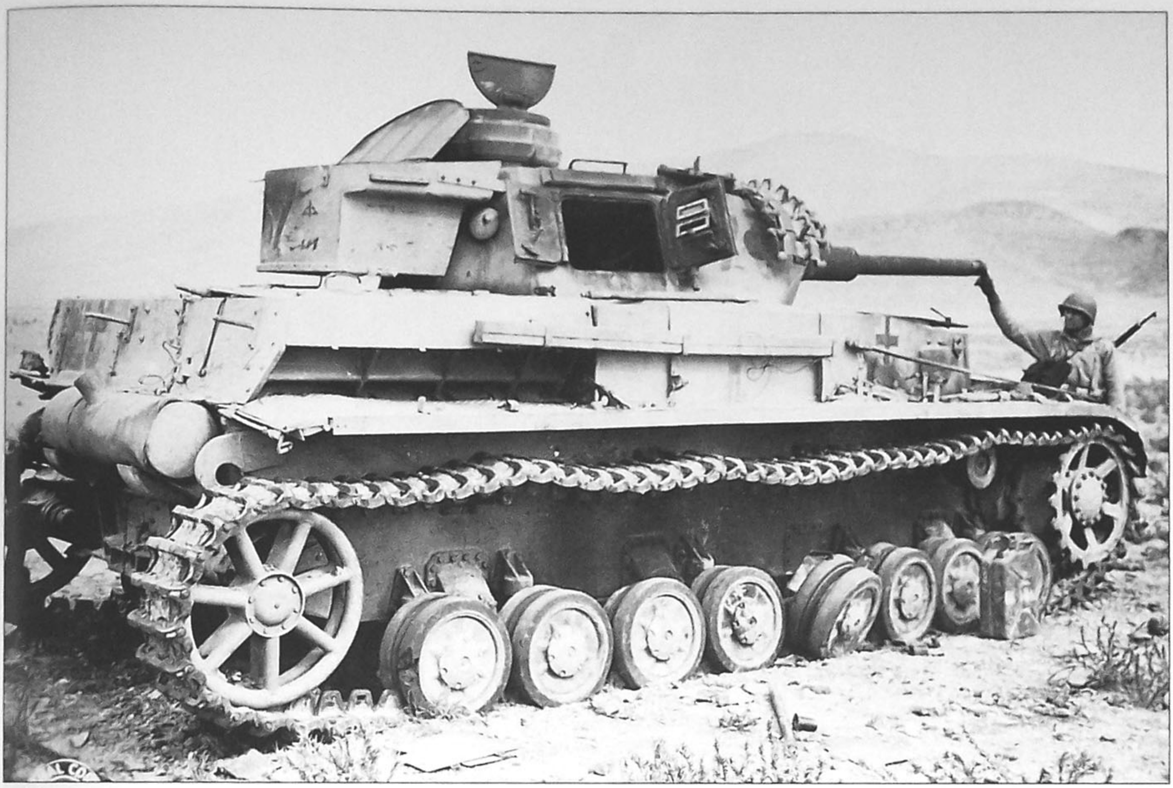
A pair of Sd.Kfz.10 half-track prime movers roll across a narrow bridge in the hills of Tunisia in 1943. The vehicle in front is towing a load behind, possibly a 3.7cm PaK 35/36 anti-tank gun judging from the wheel.



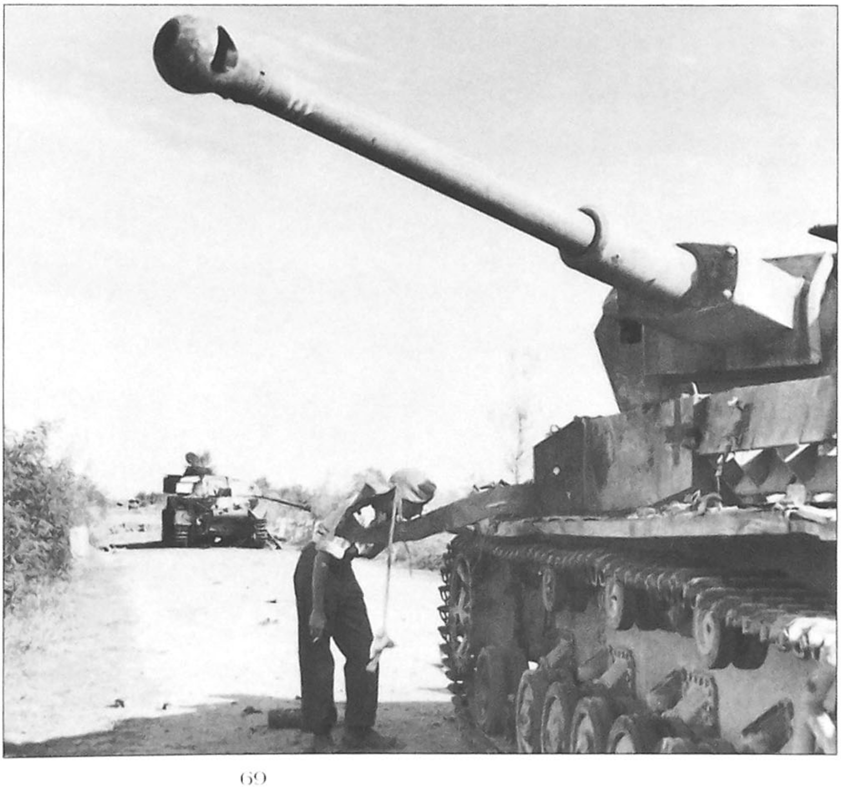
An American White armored scout car passes a destroyed Pz.Kpfw.IV Ausf.G. The vehicle is armed with a 7.5cm KwK 40 L/48 gun. The tank has obviously received a hit from an anti-tank round, which has consequently led to it losing its track and becoming disabled. The vehicle is painted in overall dark yellow. No other distinguishable markings can be seen except for the small national cross painted on the side of the hull.



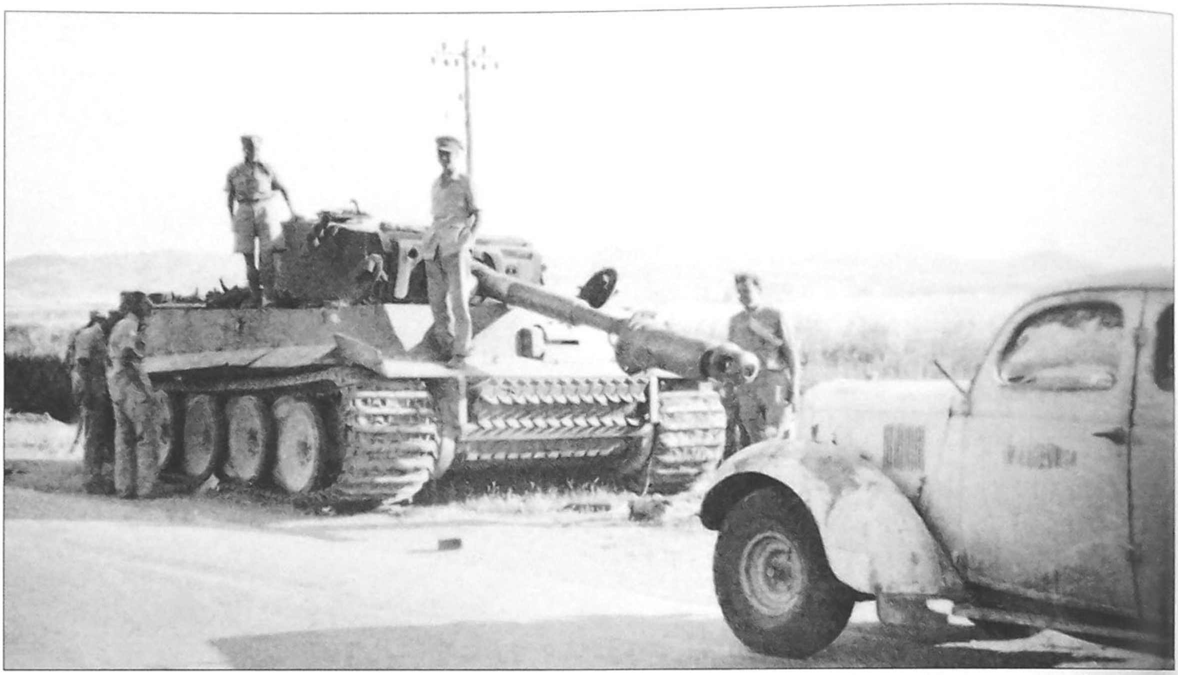
American troops survey the extensive damage wrought to two Pz.Kpfw.VI Tiger I tanks. Both of the vehicles have had their turrets blown off their mountings and lie next to the disabled tanks. It is more than likely that both of these Tiger's had run out of fuel and that the crews purposely destroyed them to avoid them falling into enemy hands intact.



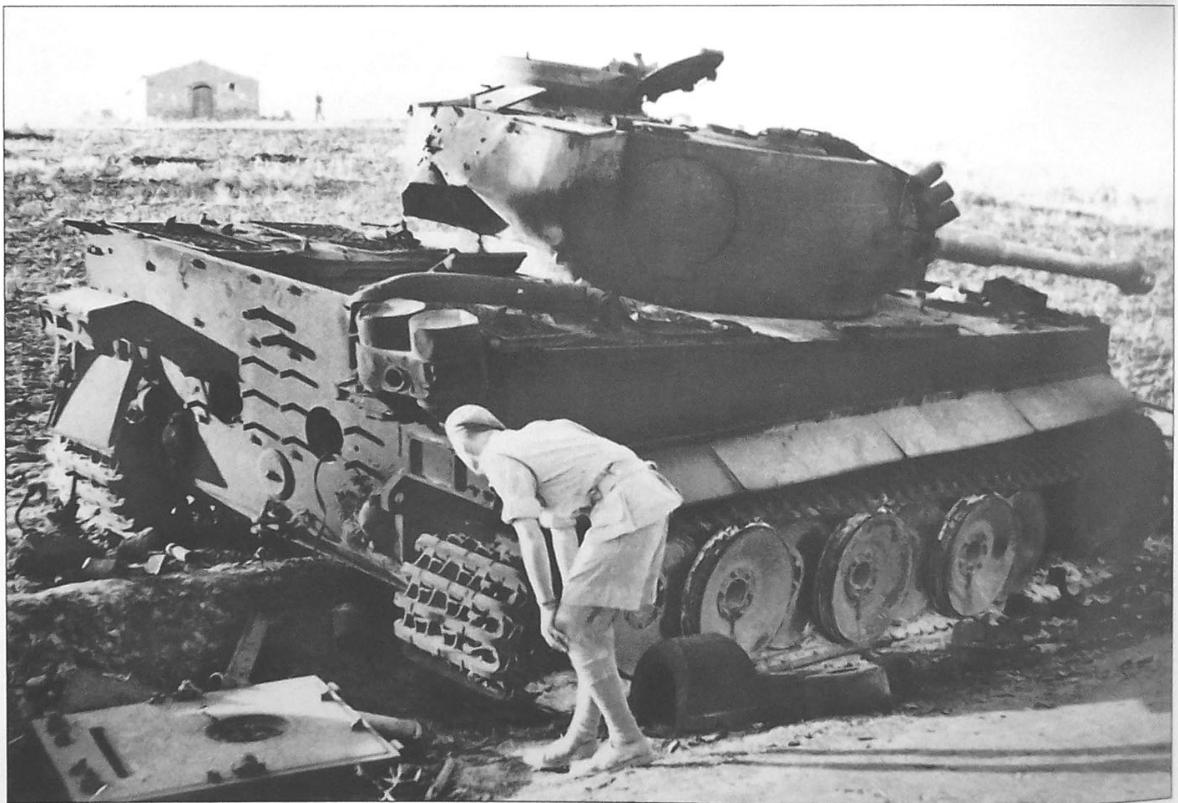
An American soldier examines a 7.5cm gun barrel of a Pz.Kpfw.IV Ausf.G that has been knocked out of action during fierce fighting in April 1943. The Pz.Kpfw.IV was undoubtedly a match for its opponents and throughout the campaign in North Africa demonstrated its superiority on the battlefield. This vehicle has been painted in overall dark yellow. The tactical number '7' has been painted in red on the back of the turret stowage bin and on the side of the turret. The triangle tactical emblem of 15.Panzer-Division and the Pz.Rgt.8 'Wolfsangle' also appear in red on the right side of the stowage bin. A black 'spade' emblem is painted in front of the tactical number on the side of the turret.



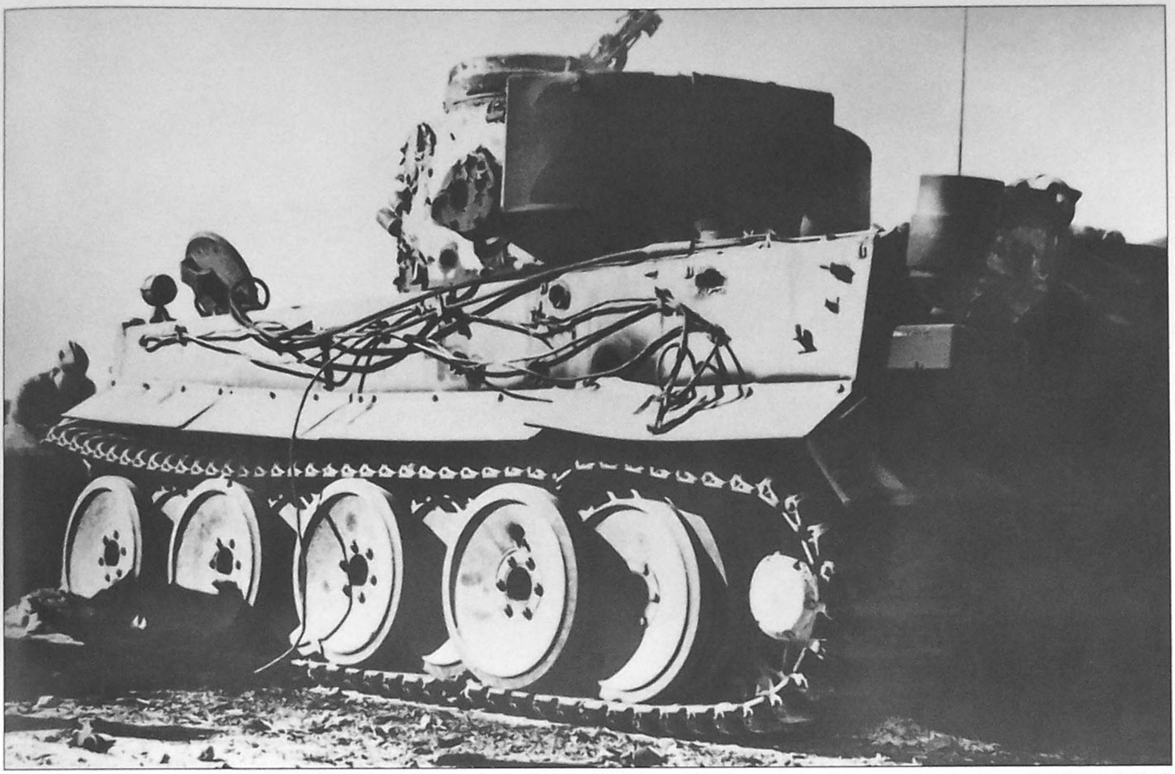
A British Commonwealth soldier inspects a knocked out Pz.Kpfw.IV Ausf.F2 in Tunisia in 1943. Another one can be seen farther down the road in the background. Three kill rings have been painted around the end of the gun barrel just behind the muzzle brake.



British troops examine a knocked-out Pz.Kpfw.VI Tiger I Ausf.E from sPz.Abt.504. This early Tiger I has its powerful 8.8cm gun barrel in a lowered position. The Tiger is painted in overall dark sand with a very light camouflage pattern of green patches.

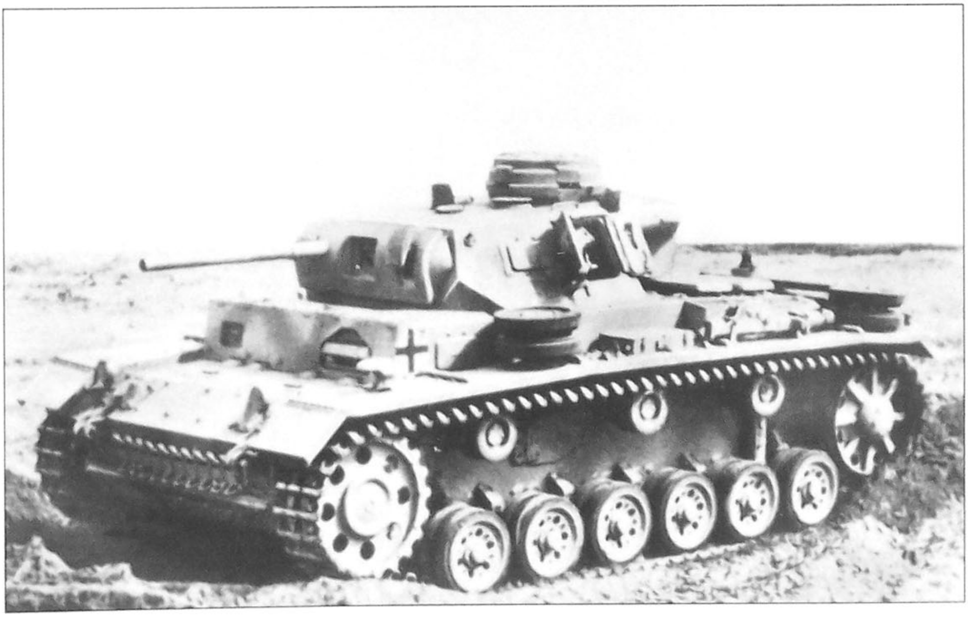


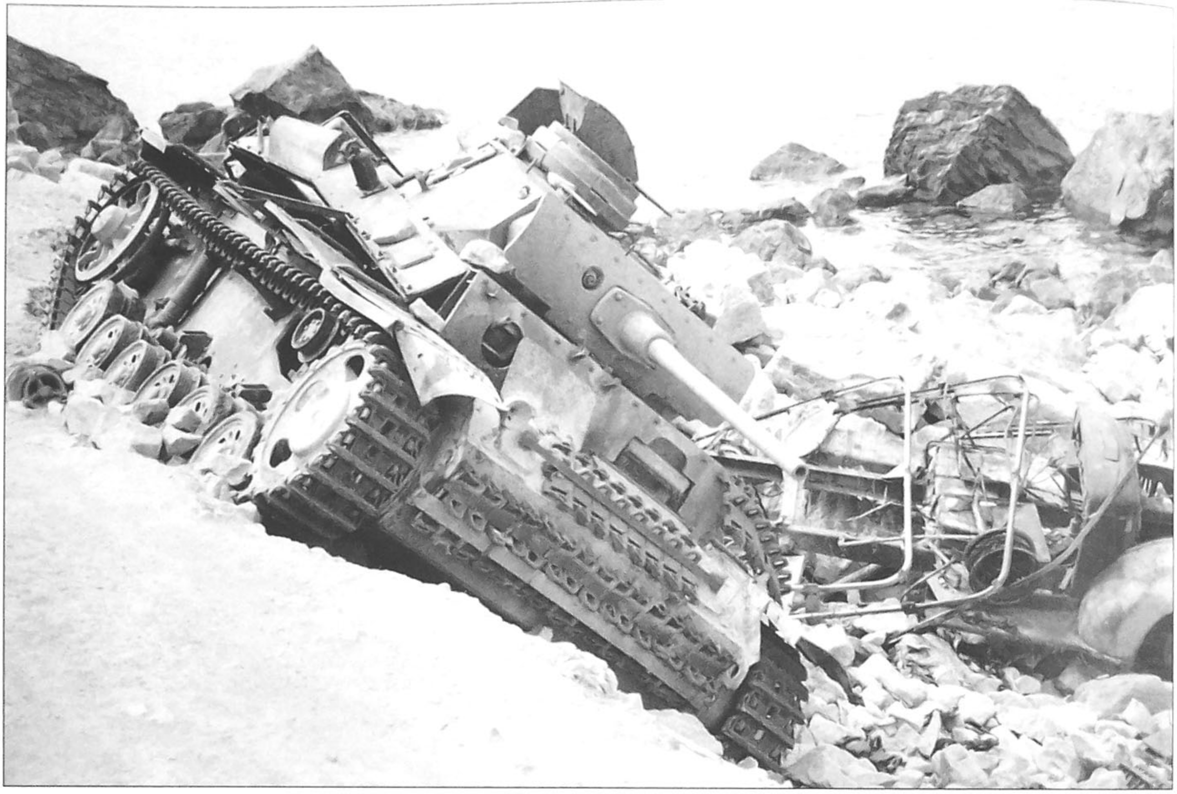
A British soldier inspects the legendary Tiger I. Although the terrain suited the Tiger tank in North Africa, constant mechanical problems and the small quantities of them in the DAK did not alleviate the growing awareness in late 1942 that the once mighty panzers were losing the war in the desert.



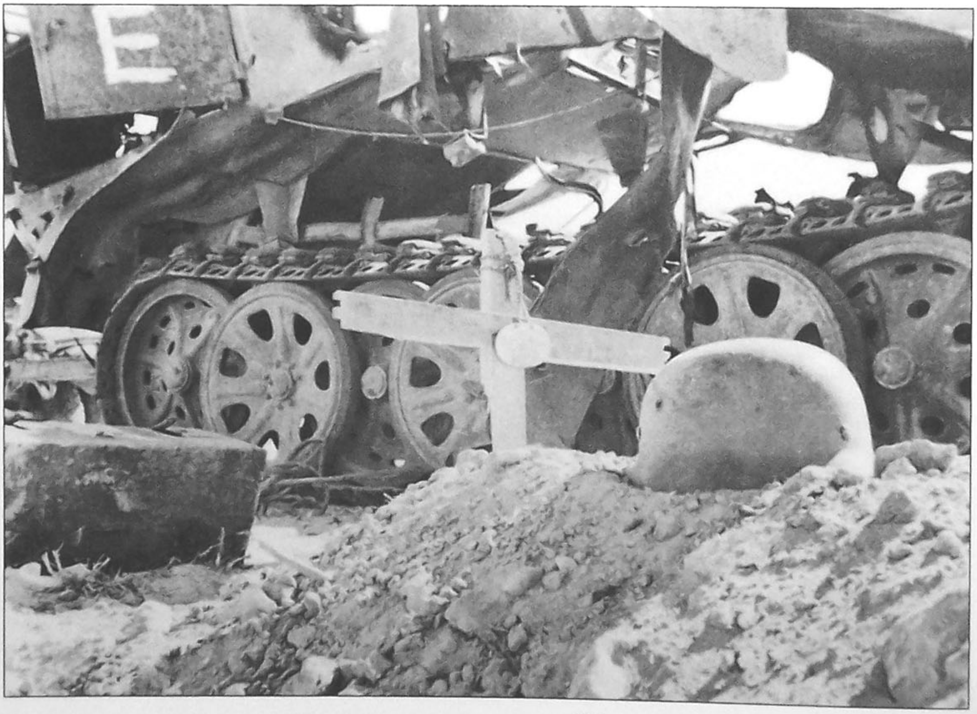
Yet another knocked out Tiger I, which has been put out of action by an anti-tank round. This massive vehicle mounted a long-barrelled 8.8cm KwK 43 L/56 gun and possessed 10cm frontal and 8cm side and rear armor. Although limited in North Africa the Tiger I played a prominent role. Against British armored units for instance they demonstrated their awesome killing power, and wreaked carnage on anything that attempted to stop them.

An abandoned Pz.Beob.Wg.III mounting a dummy cannon in the turret, probably runs out of fuel. The tank is painted in overall dark yellow with a very light camouflage pattern of green patches. As with many panzers from this late period of the campaign, the panzer regiments have begun discontinuing visible markings with unit designations.

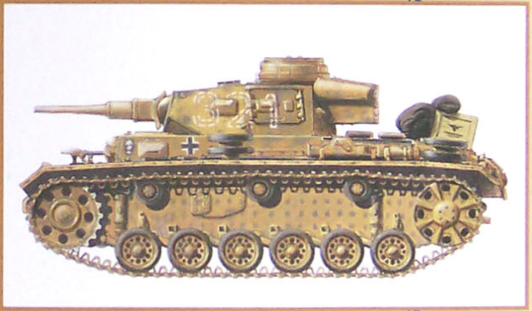


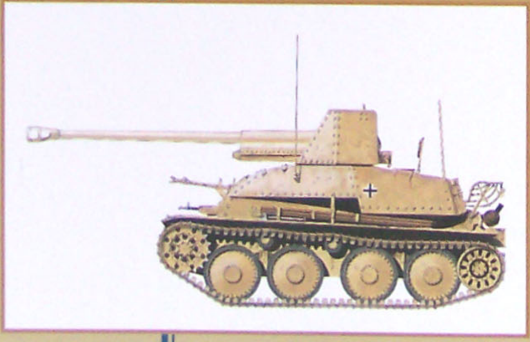


A knocked out Pz.Kpfw.III Ausf.L armed with a 5cm KwK L/60 gun, has been moved to the side of the road by the advancing allies in order to allow a constant flow of traffic to pass. Surrounding the disabled tank is a number of other destroyed remnants of the DAK arsenal. The vehicle is painted in overall dark yellow and there are no distinguishable markings. Note the track links attached to the front of the tank to help defend it against enemy rounds.



A DAK war grave. A crude cross and M1940 steel helmet marks the last resting place of the crew of a destroyed Sd.Kfz.7. Behind the grave the knocked out remnants of the half-track can be seen. The track links remain intact on the road wheels. However, the crew compartment has been twisted after receiving an anti-tank round. The vehicle has been painted in white by the Allies with a letter 'E', indicating that it has been destroyed.





ISBN 962-361-685-6

0 89195 27043 6